

free.aero



WORLDWIDE PARAGLIDING AND PARAMOTORING MAGAZINE. FOR FREE.



TRENDS 2015

EQUIPMENT FOR PARAGLIDING AND PARAMOTORING



Photo: Jérôme Maupoint / GIN

Trends for 2015...

In this issue, you'll find news and information about the people, the races, the gear and the activities which are going to be the talk of the coming season. We can't cover everything so we'll keep updating you with other interesting new developments over the next few weeks.

Having GoPros and other modern cameras attached to the pilot or to an electronically stabilised drone is undeniably a current trend. Thanks to these cameras, more and more superb videos are being put on YouTube and Vimeo, showing the beauty and serenity of flying on the one hand, and jaw dropping acrobatics on the other, filmed from both paramotors and paragliders. The footage, often taken at the most dramatic point, is an excellent advert for our sport and will no doubt encourage others to take up flying with a school. That will add to the 127,000 paraglider pilots and 26,000 paramotor pilots who are already actively flying in the world today! On page 7 you'll find the country by country figures from the study published by the PMA (Paraglider Manufacturers Association).

The digital magazines voler.info and free.aero give readers continuous information throughout the whole year. Please send all your news and views to: contact@free.aero. From now on, we will be following the trend for globalisation in a very positive way by writing voler.info/free.aero in four languages; French, English, Italian and German. Nearly 65% of all paraglider pilots worldwide and 75% of all paramotor pilots can now read our magazine in their native tongue, free, whenever they want, wherever there is internet.

Thank you to our readers and advertisers, especially in France as it was here, in the French Pyrenees, that voler.info/free.aero flapped its wings for the first time before setting off on this long flight!

Best wishes from all the team at voler.info/free.aero



CHANGING THE COMPETITION RULES

ICEPEAK 8

CIVIL COMPETITION CLASS

The new Icepeak 8 has evolved to perform more and demand less. It is a faster, more dynamic and more competitive glider. In other words: it is an overall better product.

niviuk.com

DRS DRAG
REDUCTION
STRUCTURE

RAM RAM
AIR
INTAKE

STE STRUCTURED
TRAILING
EDGE

TIT TITANIUM
TECHNOLOGY

Christian Maurer of Switzerland (SUI1) taking off on the seventh day of the Red Bull X-Alps 2013, on the Pas de la Coche in France, on July the 13th 2013.
Photo: Sebastian Marko



Red Bull X-Alps 2013, The Zugspitze in Germany
Photo: Sebastian Marko

HIKE AND FLY, THE X-ALPS 2015

Photos: Redbull X-Alps



Yvon Dathe



Dawn Westrum



List of athletes:
www.redbullxalps.com/athletes.html



X-Alps competitor Honza Rejmanek poses with all of his gear in Sacramento, CA on the 4th of June, 2013.
 Photo : Cameron Baird

Every second year, since 2003, the world's toughest paragliding race takes place over a 1000 km long arc shaped course following the alpine chain, from Salzburg in Austria to Monaco. The athletes have to either walk or fly by paraglider. The race will take place in July 2015 and the actual course will be revealed in a few weeks time.

The list of competitors has already been decided. In addition to the group of 31 athletes which was announced in October, the organizers added two extra competitors in January: Dave Turner (USA) and Peter von Bergen (Switzerland).

You can have a look at the list here:

<http://www.redbullxalps.com>

Also new this year, two female pilots, German, Yvon Dathe and American, Dawn Westrum are taking part. The last (and only) woman to compete was Kari Castle in 2005!

A competitor flying during the Red Bull X-Alps near the Matterhorn, above Zermatt, Switzerland, on July 12th 2013.
Photo : Felix Woelk/Red Bull Content Pool



A competitor flying during the Red Bull X-Alps 2013, in front of Mont Blanc, above Chamonix, France, on July 14th 2013.
Photo : Felix Woelk/Red Bull Content Pool



THE NUMBER OF PILOTS WORLDWIDE

Photo and transformation: Sascha Burkhardt



HOW MANY PARAGLIDER AND PARAMOTOR PILOTS ARE THERE IN THE WORLD?

The paraglider manufacturers association, the PMA, has published an interesting study about the number of current pilots in the world. The result: there are 127 000 current paraglider pilots and 26 000 current paramotor pilots. The study isn't just based on federation figures, but also on the sales of wings, especially in the countries without federations.

Europe is the continent which has by far the most pilots (99 000 paragliders and 19 000 paramotors), followed by Asia (14 000/1200). In Latin America, there are about 8300 paraglider pilots. In the United States, the study found there were only 5700 paraglider pilots, but as many as 4500 paramotor pilots.

The large number of German pilots may seem surprising, but the Federation has 37 000 members paying their annual free flying subscription, of which 90% are paragliders. With 33 000 paraglider subscriptions, the figure of 27 000 current pilots seems very plausible.

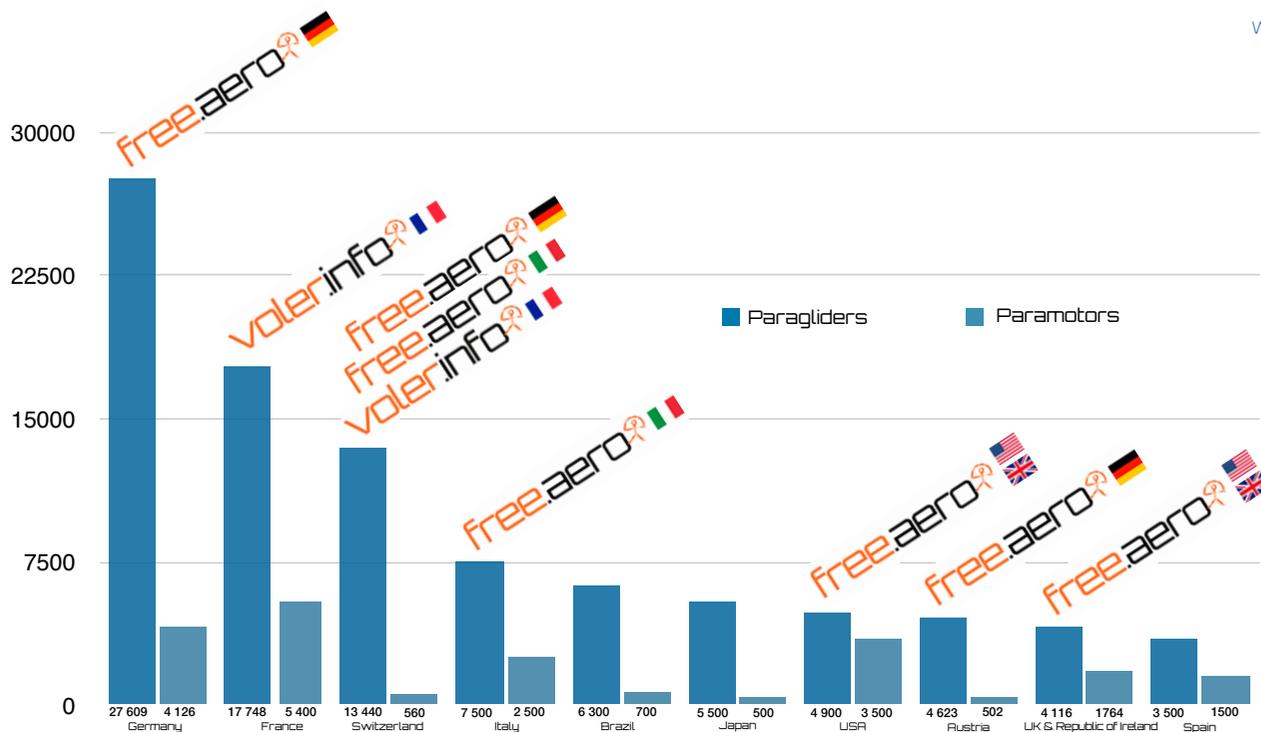
In any case, these figures support our decision to publish voler.info/free.aero not just in French and in English (since May 2014), but also in Italian (since December 2014) and German (since February 2015).

PMA : <http://www.p-m-a.info>

	Paragliders	Paramotors
Europe, Middle East, Africa		
Germany	27609	4126
France	17748	5400
Switzerland	13440	560
Austria	4623	502
Spain	3500	1500
Italy	7500	2500
Czech Republic	3000	200
UK & Republic of Ireland	4116	1764
Russia	2250	250
Benelux	1734	577
Scandinavia	2521	644
Poland	3133	348
South Africa	457	100
Slovenia	1326	70
Turkey	2600	110
Hungary	1395	155
Ukraine	720	80
Greece	657	73
Slovakia	790	86
Total	99 120	19 045
Asia		
Japan	5500	500
Australia and New Zealand	1534	194
South Korea	2750	250
China	900	100
Taiwan	900	40
India	950	25
Indonesia	1045	55
Malaysia	700	10
Total	14 279	1 174
Latin America		
Brazil	6300	700
Mexico	960	240
Total	8 340	1 060
North America		
USA	4900	3500
Canada	800	1000
Total	5 700	4 500
Total Worldwide	127 439	25 779

VOLER INFO AND FREE AERO

www.voler.info
 it.free.aero
 en.free.aero
 de.free.aero



From the end of January 2015, **voler.info** and its international editions **free.aero** will be available at a worldwide level in the native language of most paraglider pilots. According to the Paraglider Manufacturers Association, the PMA, out of the 127 000 paraglider pilots in the world, 82 000 will be able to read our magazine in their native language, and out of the 26 000 paramotor pilots, 19 000 will be able to read us in their native language. More than 100 000 pilots can read **free.aero** and **voler.info** !

Fly safe
 certika.org - Tél : 04 58 10 01 59

CERTIKA



RSULTRA KANGOOK

A Kangook Trekk in Dubai.



Photo: Kangook

The Canadian paramotor manufacturer continues to build a team from amongst the best pilots in the world: Horacio Llorens was followed by Paco Guerra who now joins the team. For the Parabatix in Dubai in December he was already flying a Kangook Trekk.

www.rsultra.com



Paco Guerra's Facebook page
<https://www.facebook.com/pacoacro>

The head of RSUltra, David Rouault, with the French dealer, Steve Riguer.



Photo: Sascha Burkhardt



Horacio Llorens's website:
<http://www.horaciollorens.com.mialias.net>

KANGOOK GERMANY



Photo: Sascha Burkhardt

Kangook Germany's Lambda sensor

Christian Reuter from Kangook Germany offers a lambda sensor adapted for use with any make of paramotor. After a ring threaded onto the exhaust has been welded in place, the sensor tells the pilot via a little indicator if the fuel is too rich or too poor. A good way of preventing against overheating!

In addition, Christian Reuter has on sale, for the very reasonable price of 18 euros, quick connectors which fit between the fuel tank and the carburettor. They allow you to disconnect the fuel tank from the chassis very easily in order to fill up after running out of fuel in the middle of nowhere...



Quick connectors (18 €, including postage).

just free
free*speed

www.free-speed.com lag

Maillon Rapide

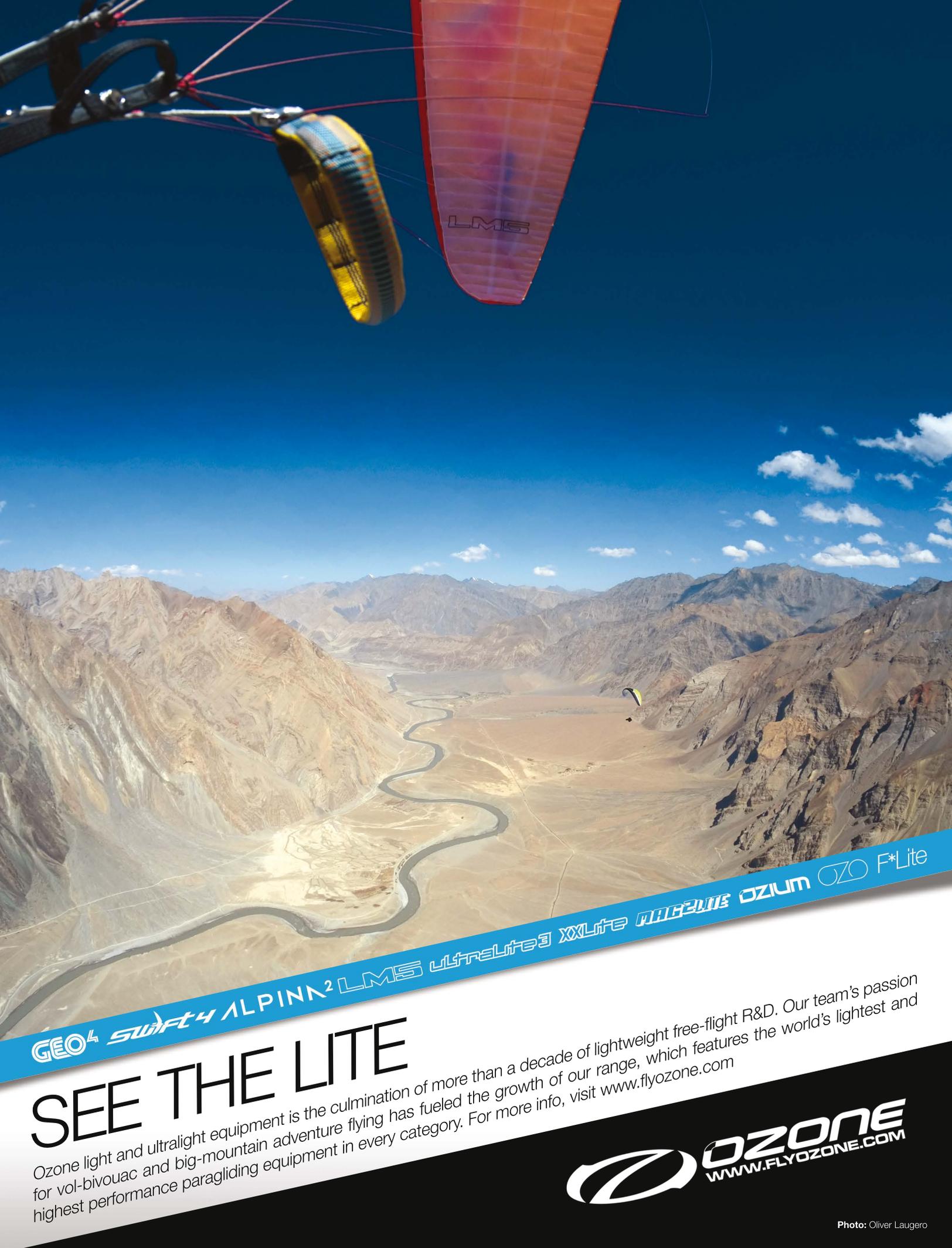
THE ORIGINAL

CE MAILLON RAPIDE
11.4 NW 150 Kg D 8.5
INDO-FRANCE

PEGUET

peguet.fr

Made in France



GEO4 SWIFT4 ALPINK2 LMS ULTRALITE3 XXLITE RACELINE OZUM OZO F*Lite

SEE THE LITE

Ozone light and ultralight equipment is the culmination of more than a decade of lightweight free-flight R&D. Our team's passion for vol-bivouac and big-mountain adventure flying has fueled the growth of our range, which features the world's lightest and highest performance paragliding equipment in every category. For more info, visit www.flyozone.com





Photo: Adrenaline

The Spanish manufacturer of the single surface Batlite has faced up to the fact that due to their limited range of speeds, the single skins have a limited market. They are now going to diversify into mini wings as well.

The Fastbat is available in two sizes with, as an option, the possibility of customised graphics.

www.adrenaline.com.es

ADRENALINE FASTBAT		
Size	17	19
Projected surface area (m ²)	14.87	16.62
Flat surface area (m ²)	17	19
Flat aspect ratio	4.70	4.70
Projected aspect ratio	3.58	3.58
Flat wingspan (m)	8.94	9.45

The Fastbat, a mini paraglider with a double surface.

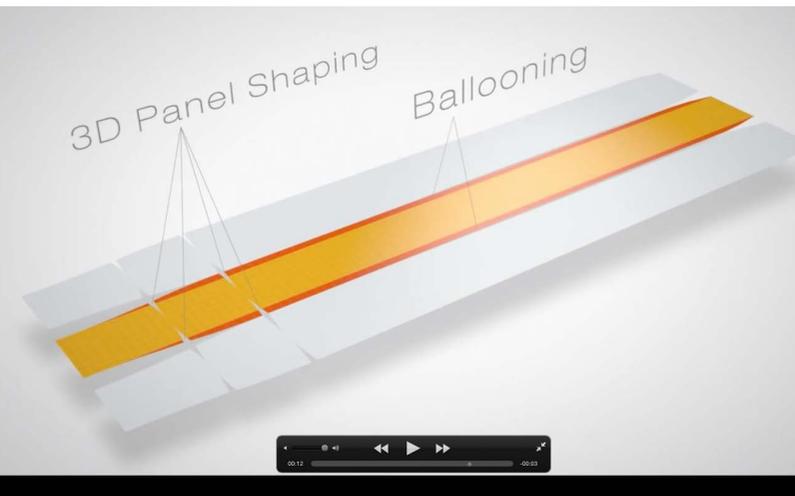


The single skin Batlite is still available.

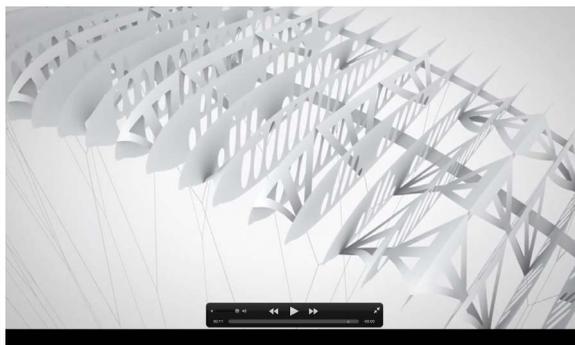




Two Advance lotas in the Jungfrau massif
(Bernese Alps)
Photo: Thomas Senf



On their website, the manufacturer explains in detail how computer aided design helped them to manage billow and optimize 3D panel shaping.



Swiss cheese from the Helvetian manufacturer: the cell walls are perforated as much as possible to save weight.

Advance are following the trend of including lots of new technology in their wings like the Iota, their top of the range EN B wing (aimed at ambitious distance pilots).

For Advance, with the Iota, a new semi-lightweight class has been born. Thanks to computer aided structural optimization with regard to the weight, the Iota weighs only 4.45 kg in size 23. This wing is made uniquely from the new fabric, Skytex 32, by Porcher Sport.

www.advance.ch/en/home

Advance Iota				
Size	23	26	28	30
Projected surface area (m ²)	19.2	21.6	23.3	24.9
Glider weight (kg)	4,45	4,85	5,15	5.45
Recommended takeoff weight (kg)	60-85	75-100	90-115	105-130
Number of cells	59	59	59	59
Aspect ratio	5,5	5,5	5,5	5.5
Projected aspect ratio	3,9	3,9	3,9	3,9
Projected wingspan (m)	8.65	9.15	9.45	9.75
Wingspan (m)	11.35	11.95	12.45	12.85
Trim speed (km/h)	38.5(+/-1)	38.5(+/-1)	38.5(+/-1)	38.5(+/-1)
Max. speed (km/h)	53(+/-2)	53(+/-2)	53(+/-2)	53(+/-2)
Certification	ENB/LTFB	ENB/LTFB	ENB/LTFB	ENB/LTFB

THOR Polini. A winning family.



1°

THOR 250
2 TIME WORLD CHAMPION
2 TIME EUROPEAN CHAMPION
2014



1°

THOR 200 EVO
2 TIME WORLD CHAMPION
2014

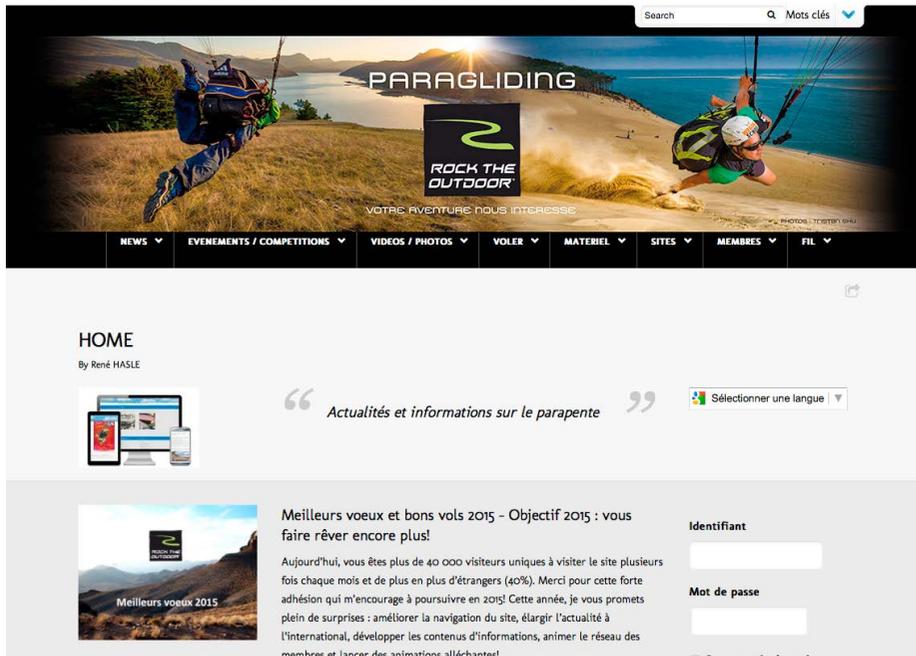


1°

THOR 130
1 TIME WORLD CHAMPION
2014

The Polini Thor 130, 200, 250 range scores a series of successes, one after another. Designed for all flight requirements, they are powerful technological real jewels, reliable performance, ready to defy the skies of the world and to win all the hearts of the enthusiasts. Thor by Polini, a large family born to win with you.

PARAGLIDING ROCK THE OUTDOOR



For over a year now another very interesting site has been on the web. Paragliding Rock the Outdoor, run by René Hasle, is a site which gathers together information found on the net about what's new in our sport (from sites like voler.info) and informs its readers.

The site is updated very regularly. Sometimes René also writes his own articles such as the report on the Coupe Icare.

<http://paragliding.rocktheoutdoor.com>



SKYWALK'S HIKE 80L RUCKSACK & MESCAL PARAMOTOR WING



Photo: Skywalk

The Mescal 4 is a wing designed for beginners and for those flying in their first thermals. It is very safe, thanks to amongst other things, the 'Jet Flaps' favoured by Skywalk, which delay it stalling and improve the behaviour after an incident.

This wing is also now perfectly adapted for paramotoring and certified to be used as such. All you need to do is to change the risers for a hybrid version (which takes about 20 minutes).

The Hike is a very lightweight rucksack for hike and fly. After the first 55 litre version, weighing less than 500 grammes, Skywalk have brought out a bigger version with an 80 litre capacity, weighing 580 grammes. Enough space for all your equipment. Price: 129 euros.

www.skywalk.info

All up weight	With motor	Free flying
MESCAL 4 S	100-125kg	70-95 kg
MESCAL 4 M	105-130 Kg	85-110 Kg
MESCAL 4 L	120-150 Kg	100-130 Kg



The 80 litre version of the Hike weighs 580 grammes.



Attaching the instrument to the riser is very practical and ergonomic. Besides the instruments, there is now also a helmet in the pipeline from the French manufacturer based near Saint Hilaire. Photo: Anthony Créteur/Syride

SYRIDE(1)



Sys One : 69 €.



Sys'Alti : 199 €.



Sys GPS: 349 €.



Sys'Nav : 399 €.

The French instrument manufacturer has had on sale, since last year, a full range of instruments which have lots of advantages in common.

Very light, these instruments follow all the trends, in particular for hike and fly. In addition, they are designed to be fixed onto the riser, where the screen is easily visible and easy to use with good acoustics...

They are also very intuitive instruments and easy to use thanks to three buttons which operate well thought out menus. The top of the range Sys'Nav offers, despite its small size, an airspace map.



Helmet: 119 €

Also new at Syride, the instrument maker now has its own brand helmet. Price: 119 euros.

Their website has been completely re-written, with no more need for a Flash Plugin, thank goodness! (Flash is a security problem for all operating systems, it uses a lot of energy and, as a result, has never been allowed on iPhones and iPads.)

The new site is a lot nicer and will be online from about the 9th of February. Don't forget that lots of Syride pilots publish the tracklogs of their flights on this site. There is also a permanent ranking.

www.syride.com

Trek



The **Trek** is a light wing*, specially designed for **hiking**. Its performances and its strength** will perfectly meet your requirements. It is the ideal wing for those who want to go off the beaten track.

www.trekking-parapentes.fr

- * **3.85** kg for the small Trek
 - ** Best glide: **9** , Min sink: **1** m/s
- The leading edge are reinforced.
The edelrid lines are fully sheathed.
EN B small and medium

PARAPENTES
Trekking
Free Spirit since 1986

Photo Pierre André Pissard - Trekking Pilot Charly Barroso

ASCENT



The manufacturer of the small, but perfectly functional Ascent GPS-varios, which attach to your wrist or riser, have announced two improvements in the latest upgrade. From now on, the instrument will record flights including a G-Record, necessary for flight validation when sent directly to a server such as X-Contest.

Also new, the Ascent is available in French, German and Italian.

www.ascentvario.com

TREKKING



The French manufacturer is working on a wing designed for use at the seafront: fast, with adjustable trimmers on the front which can be used together with the foot accelerator, the latter having a longer travel.

The pilot can thus lightly trim the front to have a higher basic speed in strong wind, then accelerate if necessary. According to Nicolas Brenneur, putting trim on the front rather than detrimming the back isn't the same thing at all and the profile therefore keeps a 'normal' shape.

The wing will be small with 52 cells, 21m², have an aspect ratio of about 9 and a maximum speed of about 50-55 km/h.

<http://trekking-parapentes.fr>

BUGGY SKI



For non flyable days at ski stations, there is a novel new winter sport. For more than two years now a French inventor has been working on the Buggy Ski; mini skis for the elbows and knees. Interesting!

<https://www.youtube.com/watch?v=vcBZ5NQZYrQ>

AIR DESIGN RAZOR EDGE

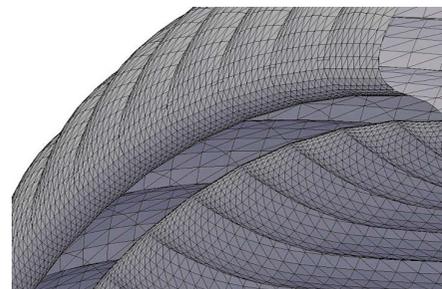


It isn't just the nose of wings which can be optimized; the trailing edge is also an important element for the aerodynamics of the profile. That's how mini ribs came about!

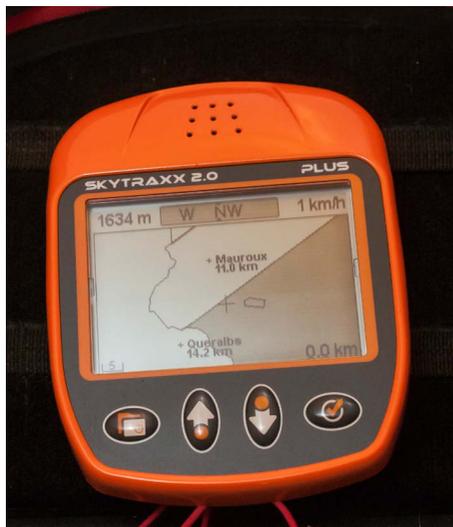
The designers at Air Design call their trailing edge, the 'Razor Edge'. The very sharp profile should give, according to the Austrian manufacturer, an extra point of glide.

It can be seen on the Rise 2 Superlight. On this wing, there is also a SharkNose, as on most manufacturers' wings.

<http://www.ad-gliders.com/en/>



SKYTRAXX 2.0 PLUS



This vario is made in Germany, in the Black Forest, opposite the French Vosges. It is becoming increasingly successful in Europe and one of its biggest advantages, apart from working very intuitively, is its large 4GB memory.

It doesn't just come with a database of all the sites in Europe, as well as airspace for 31 countries, but also includes topographical data for the whole of the Alps.

That allows it to display, at any point in the flight, the altitude above the ground. For the Pyrenees, or any other region, the pilot has to download the data himself, but there is still space left in the memory.

www.skytraxx.eu/index.php?lang=en



Cover photo: François Ragolski takes a selfie with his GoPro during a Twisted Infinity.

François Ragolski, first in the world rankings. Photos: DR Collection Ragolski

ACRO

Acro has become a respected activity under the auspices of the FAI, who have introduced a world ranking for the sport. French pilot François Ragolski (in the photos) is in first position, followed by his fellow countryman Eliot Nochez and another French pilot, Timothée Alonghi.



http://civrankings.fai.org/?a=326&ladder_id=6&



Photo: François Ragolski



Photo: Luc-Hentsch



Photo: Luc Hentsch

SONCHAUX ACRO SHOW

Obviously, amongst the events which count for the classification is the well respected Sonchaux Acro Show over Lac Leman

Acro competition calendar

Competitions	Dates 2015	Disciplines	FAI C at 2	APWT	Website
AcroMax, Trasaghis-San Simeone (Ita)	6 - 9 August	Solo + Synchro	Yes	Yes	www.vololiberofriuli.it
AcroAria, Omegna (Ita)	13 - 16 August	Solo + Synchro	Yes	Yes	www.vogliadivolo.it
Sonchaux Acro Show & Swiss Champs, Villeneuve (Sui)	20-23 August	Show + Swiss champs + APWT	Synchro	Synchro	www.acroshow.ch
Pre-Worlds, Doussard-Annecy (F) (not confirmed)	26-30 August	Solo + Synchro	Yes	Yes	
Coupe Icare, St Hilaire (F)	17 - 20 Sept	Show	No	No	www.coupe-icare.org
World Air Games, Dubaï (UAE)	1 - 12 Dec	Solo + Synchro FAI Invitational	FAI Cat 1		



STUBAICUP



The 24th Stubaicup, an important show at the start of the season, will take place from the 6th to the 8th of March 2015. Lots of paragliding manufacturers will have their latest models on display. It'll be easy to try them out thanks to a quick turn around on the ski uplift.

www.stubaicup.at

WATCHDOG

Photo: Sascha Burkhardt



The materials used to make lightweight wings are becoming lighter and lighter, but this also clearly raises the question of how long they will last, and in particular, the fabric which is subjected to UV.

More than ten years ago, the company Altimo was already selling Solartimer (top right), a device designed to be sewn into the fabric in the upper surface to log the hours of UV suffered. It wasn't a commercial success.

But as the trend turns towards lighter and lighter wings, this new improved version made by an Italian engineer could, in the end, be a success.

Price around 20 euros (bulk purchase).

<http://watchdog-openflights.blogspot.it/p/il-watchdog-nasce-dalla-passione-e.html>

LITTLE CLOUD

For Little Cloud, the specialist in mini wings, thanks to the progress made over the last two years, the high performance, accessible to all minis are now capable of flying in pretty much the same conditions as normal wings but they are faster, have more direct piloting and are a lot more playful.

www.littlecloud.fr/en/



Photo: Little Cloud

According to Little Cloud, the Spiruline GT is a reasonable sized wing (20 and 21.7 m²), 4.5 aspect ratio, with a reasonable weight (3.7 and 3.9 kg) and a glide angle of 9 at 42 km/h. It's very playful and has an enormous amount of travel in the controls – 67 cms. It's a wing that is ready to do anything, hike and fly, traveling, XC... It has also been very well received by female pilots.
Price 2250 euros.

AIRZONE TV



A new web-TV channel started at the beginning of 2015 about anything to do with lightweight aviation including paragliding and paramotoring. Initially it will be in Czech, English, and German; this channel is produced by Miroslav Oros, former editor-in-chief of a Czech free flying magazine who used to work with the paramotor manufacturer Nirvana.

www.airzone.tv



Photo: Swing

The Spitfire 2

SWING



Photo: Swing

The Orange Cross reserve.

The Spitfire 2 is an updated version of the Spitfire, a pure speed riding wing, well adapted to taking off with skis. It offers, amongst other things, even more direct piloting thanks to shorter lines. According to Swing, making the wing lighter should, in addition, increase the stability of the wing above the pilot's head whilst skiing.

With the Orange Cross, Swing has also ventured into modern parachutes. The square canopy is extended downwards and has special openings to give a better distribution of dynamic pressure. According to the manufacturer, this concept improves, amongst other things, the opening time and gives a lower rate of descent. Made in Europe, this reserve should have a long life span, up to twelve years.

www.swing.de

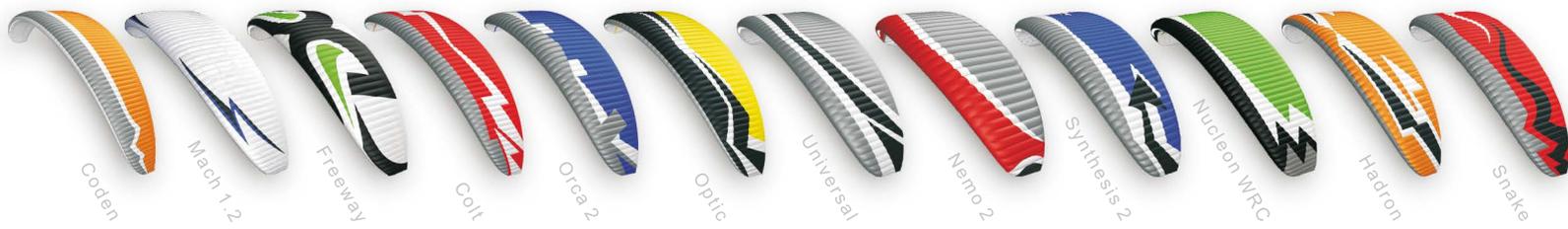
PARAMOTOR-SKI, NOT HELI-SKI...

A cheaper way of heli-skiing: being dropped off by a dual paramotor. Cool! This video was filmed near Val Thorens...

<https://vimeo.com/117619675>



full range of freeflying & paramotor wings



DUDEK
paragliders

www.dudek.eu

APX 2015



The Anney Parapente Expo will take place on the 23rd and 24th of May 2015. It is a very important trade show at the beginning of the season where lots of manufacturers will be launching their new products and ideas. You'll be able to try them out here thanks to a free shuttle up to the site at Forclaz.



www.google.fr/maps/place/Doussard



<http://www.annecy-parapente-expo.fr>



Forclaz, an ideal take-off for testing a wing at the APX.

OZONE

With the Enzo 2, Ozone had a strong presence in the World Championships. Eager to learn more about the technology used, we candidly asked one of the designers, Luc Armant, why this wing flies so well, hoping that he would perhaps reveal some of their manufacturing secrets.

The reply wasn't at all along those lines, but it is worth publishing all the same. *'Perhaps it's because we design our competition wings primarily for ourselves and our friends. Flying and competing is part of our lives and our passion. We therefore put lots of energy into every detail of the wing, not just the performance but also the feeling and the handling which are equally important'*.

As for new products for 2015, Ozone will be bringing out, amongst other things, the LiteSpeed, in 15, 17 and 19m2.

The construction is very similar to the Ultralite, but lighter with a double surface.

It will be a mountain wing, fast and light, but not a hypothetical Ultralight 4. It's a real four liner, and it has trimmers which allow you to raise the trailing edge in a similar fashion to reflex paramotor wings. It will also have a SharkNose.

www.flyozone.com



Photo: Felix Woelk

Ozone Enzo 2.

The future LiteSpeed: a mini-wing or mountain wing, fast with trimmers and a SharkNose, three sizes 15,17 and 19m².



Photo: Ozone



In 2015, the Polish manufacturer celebrates their twentieth anniversary. Initially they were particularly active in producing paramotors. And they still are; the Snake slalom wing has just won the Parabatix competition in Dubai. At the same time, Dudek are making more and more wings for hybrid use for paramotoring and paragliding, and indeed for free flying full stop.

For the year of their twentieth anniversary the new models will have the suffix XX. There will be the Freeway XX, Colt XX, Nemo XX and the Orca XX.

The SharkNose is making its debut on the Dudek wings too, including on the beginner's wing, the Nemo XX. That makes sense because one of the advantages of the SharkNose is that it makes the wing more solid, not only at high speeds, but also around the minimum speeds, thus making beginner wings safer too.

For this new range, the colours of the wings have changed too. The artist Włodek Bykowski has introduced colours representing the elements of earth, fire, air and water...

www.dudek.eu

The Nemo 3 will be called the Nemo XX. A SharkNose is clearly visible on its leading edge.



Dudek's new colours can be seen on this Orca XX tandem, symbolising the four elements.



A Wingover on a U 6, by Ondrej Prochazka, Columbia.

AIRCROSS(1)

The German manufacturer has created a 'Team Air Cross'.

Amongst the places available will be five pilots per country who will be kitted out at a reduced price:

U Cross 1250 €
U Infinite 1500 €
U Sport 2 1750 €

In return the pilots must declare their 2015 flights on distance competition websites.

AIRCROSS (2)



An acro sequence by one of their team pilots:

https://www.youtube.com/watch?v=DM7V3oxuT_8

Other than that, Air Cross are currently finishing off their tandem, the Double U (LTF/EN B), which will be available at the end of February.



www.aircross.eu/net/?lang=en

Flying the Double U tandem, by Jürgen Rabe



Julien, a young designer at Air Cross, has created some very original t-shirts for the brand, available for 29 euros.

360 VISION

<http://www.kolor.com/fr/video>



360° filming (or almost) is becoming more and more common. We've already featured Kolor's product as an example (see our Coupe Icare article). Kodak has also launched a camera able to take full immersion videos. The Kodak SP360 costs 399 € euros. Contrary to the solution used by Kolor, it isn't comprised of more than one camera.

Like all 360° videos, it needs a plugin/special reader to view the films properly. The raw footage is, nonetheless, just as funny to watch, as you can see in this scene filmed by Armin Harich from Skywalk:



<https://www.youtube.com/watch?v=3uNAkivORXo>

For more information about the SP360:
kodakpixpro.com/Europe/fr/cameras/actioncam/sp360.php

U PRIME

LTF/EN A



AIRCROSS
 WWW.AIRCROSS.EU

AirCross introduces the team!

Hello, my name is Paul Amiehl and I am a paraglider designer in the AirCross team. I was born on November 22nd, 1940 in Bordeaux, France.

As a paraglider pilot I've been flying since July 1978 and since 1995 I am a professional paraglider designer.

In my career I have set a lot of new trends and innovations for the company ITV with Michael Leblanc, then self-employed for E2RA, MCC and now for AirCross. I designed the U Prime and the U fly2. Currently we are developing more outstanding gliders.

I love to sail, music, play the guitar and my family.

I wish you lots of fun and "happy landings" with our gliders!



ELECTRONIC STABILISER



For a long time gyroscopic stabilizers were the prerogative of big budget aerial filming.

These devices, which can now compensate with their motors for camera shake, induced by the operator or a drone in flight, in order to stabilize the images, are becoming more and more accessible.

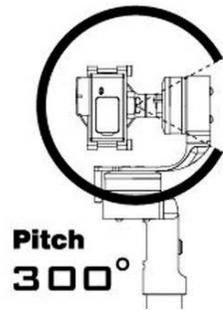
An example for less than 300 euros is the Feiyu FY-G3. A pilot used it to film this cool paramotor flight close to the ground and slaloming around the clouds. The stabilization is surprisingly efficient for an instrument of this size and price!

<https://www.youtube.com/watch?v=OBBPcikliak>



Le Feiyu FY-G3 sur Amazon

<http://www.amazon.fr/dp/B000N6FH0>



The successor to this model, the FY-G4 is only slightly more expensive (about 360 euros). It was used to film the amazing video by 777 gliders of the Rook 2, in the Dolomites that we have already featured. You can see very clearly the efficient stabilization; very impressive!

<https://vimeo.com/111084305>



THE GHOST THAT FOLLOWS YOU...



Being filmed by a ghost...
 We've already written a bit about the new generation of drones designed for aerial filming. They can be flown using a traditional remote control (operated by the pilot or a third party), but will also be capable of following you automatically thanks to a smartphone application in your pocket which communicates with the aircraft.

One of the first drones of this type to be commercialized is the Ghost. It weighs a maximum of 2.5 kg and has an integrated system to attach a GoPro 3, 3+ and 4. It is stabilized electronically on three axes, with a Morpheus H3D 360 brushless gimbal. It should theoretically follow you in the air so that you can film yourself, but only on a horizontal plane. For the moment the pilot has to correct the altitude.

At the time of writing we have just received a model to test at voler.info/ free.aero. We'll let you know as soon as possible how we get on and what it can really do...

<http://www.thundertiger-europe.com>

FREESPEE



This German company offers very useful accessories for paragliding such as speed bars which are easy to adjust in flight thanks to an automatic clip. The triple bar accelerator costs 63.90 euros plus postage.

And a new addition: bamboo glasses, an ecological trend!

Available in various colours.
 Price: approx 60 euros.

<http://www.free-spee.com>





Photo: Véronique Burkhardt

———— NOVA(1)

The Austrian manufacturer has always been at the forefront of modern technology. The SharkNose trend was, for example, already predated by trials on the Rookie's nose in 2006, when Hannes Papesh introduced a hollow in the air intakes.

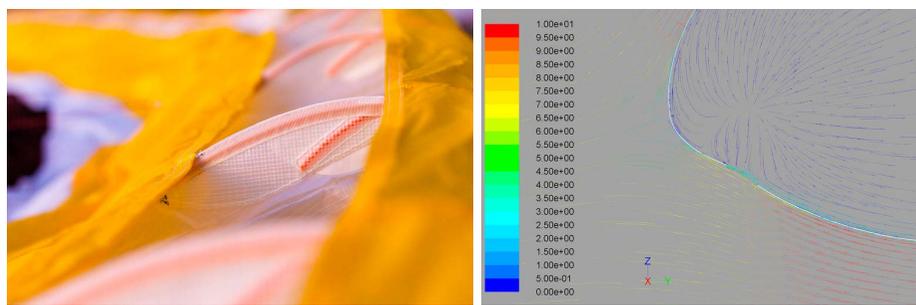
Now the 'Air Scoop' technology is even integrated in EN B wings like the excellent Ion 3 light that we are testing. It isn't by chance that this form of SharkNose has the same name, 'Air Scoop', as Advance use. The two manufacturers do research work together and Hannes Papesh now works for Advance.



Double 3D Shaping

New on the Nova site: on each wing's page, the best flights from XContest flown on that wing are now listed. This lets you see straight away the enormous potential of a "Low EN B" wing like the Ion 3 Light, which can also be used as a school wing...

Another new technology used in Nova wings: 'Smart Cells' technology consists of adapting the cells to the loading by making adjacent cells of different widths. The Double 3D Shaping contributes to the optimization around the leading edge. The desired result has been pretty much achieved...



www.nova-wings.com

AirScoop technology, or in other words a SharkNose Nova style, is based on work which started in 2006 on the Rookie's nose.

No, the seamstresses haven't been drinking. The difference in the size of these cells is intended ("Smart Cells").



ION LIGHT

Target group Film Technology Service XC Courses Scope of delivery FAQ Downloads

Best flights

ION 3 Challenge

The ION 3 is a wing with extraordinary performance. It is greedy for distance. Below is a list of the best and furthest ION 3 flights. Get yourself added to this list!

New on the Nova site: on each wing's page, the best flights from XContest flown on that wing are now listed. This lets you see straight away the enormous potential of a "Low EN B" wing like the Ion 3 Light, which can also be used as a school wing...

Position	Pilot	Glider	Takeoff	Route	Kilometre	Points	Link
1	Dušan Đurković - SI	NOVA ION 3	Hochstein - AT		214.55	300.37	
2	Johann Tockner - AT	NOVA ION 3	Greim - AT		192.96	231.55	
3	Johann Tockner - AT	NOVA ION 3	Kals - AT		158.60	222.04	
4	Gabriele Pittaro Truent - IT	NOVA ION 3	Sorica - SI		172.31	206.77	
5	Franz Tockner - AT	NOVA ION 3	Stubberkogel - AT		119.42	187.19	
6	Nicole Leuenberger - CH	NOVA ION 3	Niesen - CH		133.14	159.77	
7	Rinaldo Vuerrich - IT	NOVA ION 3	Serrone - IT		132.79	159.35	
8	Massimiliano Favaro - IT	NOVA ION 3	Bassano - IT		129.47	155.36	
9	Johann Tockner - AT	NOVA ION 3	Zetterfeld - AT		110.91	155.27	
10	Norbert Aprisani - AT	NOVA ION 3	Stubberkogel - AT		144.95	144.95	
11	Bernhard Plurach - AT	NOVA ION 3	Stoderzinken - AT		114.98	137.96	
12	Aline Schäfer - DE	NOVA ION 3	Emberger Alm - AT		101.97	122.96	

U-TURN

U-Turn have got lots of new gliders for 2015:

Emotion 3 (EN A), Paramotion (EN A), freerider/freestyler Redout, acro Blackout, tandem Twinforce...

The Infinity 4 (photo) is available in sizes XS, S, SM, M, L.



www.u-turn.de



Photo: Benedikt Börs - ParamotorGermany.com



Photo: BGD

At BGD, the high end EN B, Base has been certified. With a total of ninety cells, it weighs 5.3 kg in size M (photo above). The aspect ratio is 5.68 (projected 4.08).

Maximum speed: 55 km/h.
 Sizes : S, M, ML, L.

On the left, the Luna flown with a paramotor, going for a jaunt around an Andalusian bull.

www.flybgd.com

WINDSRIDERS



Soft warm down...Windsriders are being worn everywhere!

After the down jackets, a great idea for flying in winter, or for everyday use when it is cold, comes the matching gloves, very warm, made from down and attached to the controls. At take off you have your hands free and mobile, in flight they are warm...

They can be used on a paramotor too, the brake handle fits inside!

60 euros a pair.

Also new at Windsriders is the Hybrid Thermik jacket which combines the original down jacket for the front and back with soft shell which is solid and flexible for the sides and sleeves. Price 105 euros. The sleeveless gilet, designed for between seasons, costs 100 euros.



Photo: Windsrider

www.windsriders.com

THERMIK-MESSE

www.google.fr/maps/place/Schwertstraße+58,+71065+Sindelfingen,+Allemagne



Photo: Thermikmesse

The Thermik-Messe one day trade show (no connection with the magazine of the same name), will take place on the 28th of February 2015 at Sindelfingen near Stuttgart in Germany.

It has become a very important trade show with over 60 stands which takes place before the start of the season in the heart of Germany, the country which has the most paraglider pilots in the world.

www.thermikmesse.de

MAPS OF FLYING SITES

FLUGGEBIETE ALPEN

Alp flying sites • Sites de vol Alpes • Siti di volo delle Alpi

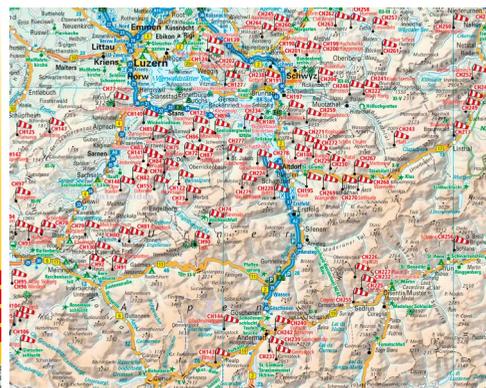
- Gleitschirm + Drachen DE
- Paraglider + Hang Glider EN
- Parapente + Deltaplano FR
- Parapendio + Deltaplano IT



M 1:500.000 / 1:1.000.000



www.cloudbase-media.de



ÖSTERREICH/AUSTRIA

Kontakt:
 Österreichischer Aeroclub (ÖAeC)
 Prinz-Eugen-Str. 12
 A - 1040 Wien
 Tel: 0043/1/5051028
office@aeroclub.at
www.aeroclub.at

Nützliche Infos:
 Streckenfluginfos: www.streckenflug.at
 Flugsicherung Österreich (Austrocontrol): www.austrocontrol.at

Wetter:
www.dhv.de (Sammlung wichtiger Wetterlinks in den Alpen)
www.austrocontrol.at/wetter
www.wetter.at

Lizenzen:
 Deutsche - und Österreichische Piloten: Lizenzen sind gegenseitig anerkannt.
 Ausländische Piloten benötigen

AT-5 Kriegerhorn
 6764 Lech am Arlberg ΔH=677 m
 SP1: ↖ S, GS, 2.142 m NN
 N 47°12'50.631755" / O 10°06'56.99016"
 LP1: GS, 1.465 m NN
 N 47°12'34.91" / O 10°08'53.77"

AT-6 Schnifis
 6822 Schnifis ΔH=704 m
 SP1: ↖ S, GS/HG, 1.310 m NN
 N 47°13'41.95" / O 9°44'22.14"
 LP1: GS/HG, 699 m NN
 N 47°12'49.45" / O 9°44'04.45"
 LP2: GS/HG, 606 m NN
 N 47°12'37.94" / O 9°43'23.4"

AT-7 Jöchelspitze
 6653 Bach ΔH=825 m
 SP1: ↖ SW-W, GS/HG, 1.763 m NN
 N 47°16'30.48" / O 10°21'50.33"
 SP2: ↖ SO-S, GS/HG, 1.809 m NN
 N 47°16'35.581314" / O 10°22'01.68531"
 SP3: ↖ SO-S, GS/HG, 1.884 m NN
 N 47°16'40.874595" / O 10°22'10.33704"

From Munich to Bassano, from Vienna to Monaco, this paper map scale 1 : 500 000 (1:1 000 000 for the southern Alps) shows more than 1000 Alpine sites. The accompanying booklet gives the coordinates of the different take-offs and landing fields at these sites. It costs 17.80 euros excluding postage.

List of online shops:

www.cloudbase-media.de/order

FACE TO FACE



A deliberate collision or a new acro manoeuvre?

Here, Tim Alongi and Eliot Nochez collide head on... and stay stuck together for ten seconds in a joint parachutal. They call it the 'Face to Face Hook'.



A very difficult sequence, carefully studied. One pilot flies a bigger wing and that's the wing that starts to fly backwards, whilst the smaller wing continues to fly forwards, as Eliot Nochez explains. Incredible and, above all, don't try this at home...

<https://www.facebook.com/video.php?v=873005746115256>



KANGOOK TEAM PARAMOTORS

The beauty is in the design,
the Genius is in the detail...

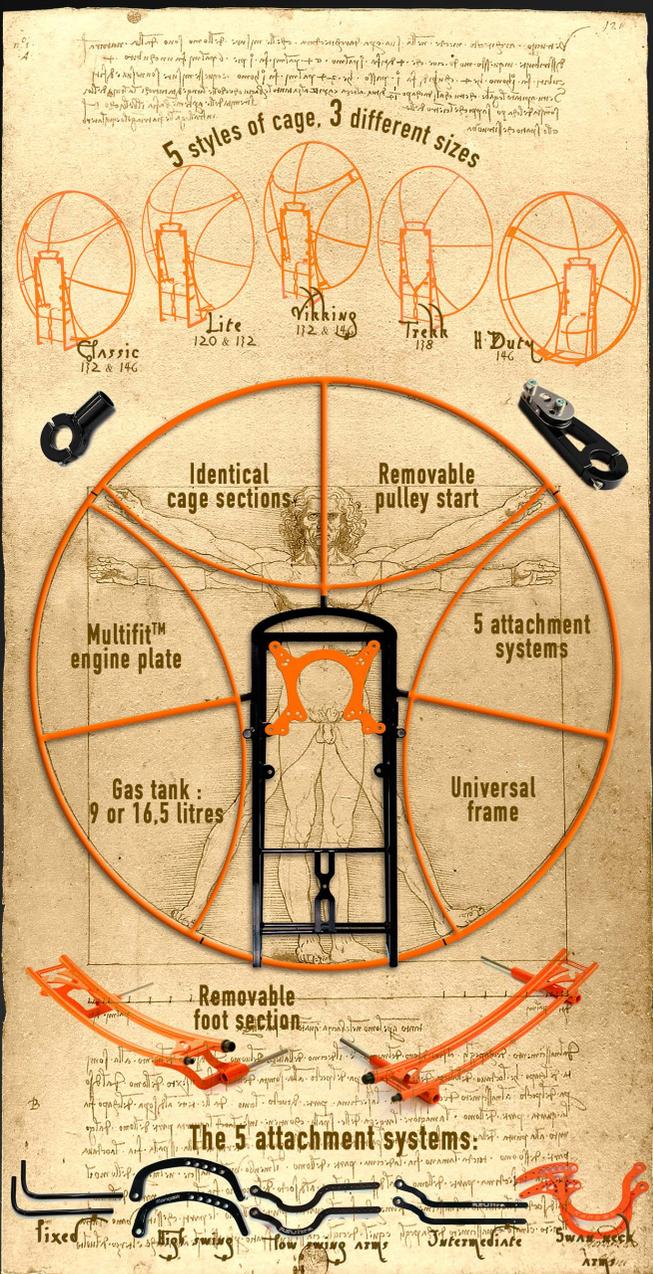


Photo: Benedikt Bös - ParamotorGermany.com
Pilot Manu Malaguita, wing: AirG products Emelie Peace
Motor: FlyProducts CorsAir-Motors Black Devil

ACRO ON A PARAMOTEUR

A few years ago, for lots of paraglider pilots, paramotors were noisy contraptions almost stationary in the sky. But that was before. A very clear trend is developing, lots of acro pilots are discovering motors, and they don't begrudge using petrol powered thermals to help them climb easily up to a good working altitude.

In addition, more and more manufacturers like Rsultra and Fly Products are optimizing certain models to cope with the increased forces during acro... Here's an Infinity in the skies above Andalusia, with Manu Malaguita at the controls.



Video: acro on a paramotor. An interesting clip showing the freedom that paramotors give for doing acrobatic manoeuvres at altitude and the wacky games you can play near the ground...
<https://vimeo.com/82235259>



Live a new experience

syride

BACK TO GRAND BO

Photo: BacktoGrandbo



A novel competition open to everyone. From the 27th of June to the 10th of July 2015, Back to Grand Bo (organised by [Certika](#)) is a paragliding competition based on one very simple rule: The only objective is to take off at Grand Bornand and fly the biggest out and return.

The idea is to gather pilots of all levels together at the same event, whether they are there to discover competition flying or to break distance records. Everyone chooses their day to fly and their route depending on their level.

The number of attempts is unlimited. Each pilot can fly as many times as they want during the fifteen days of the competition to try to improve their performance. All you need to do is download your GPS track on the organisation website.

8000 euros prize money will be divided amongst three categories according to the aspect ratio of the wing:

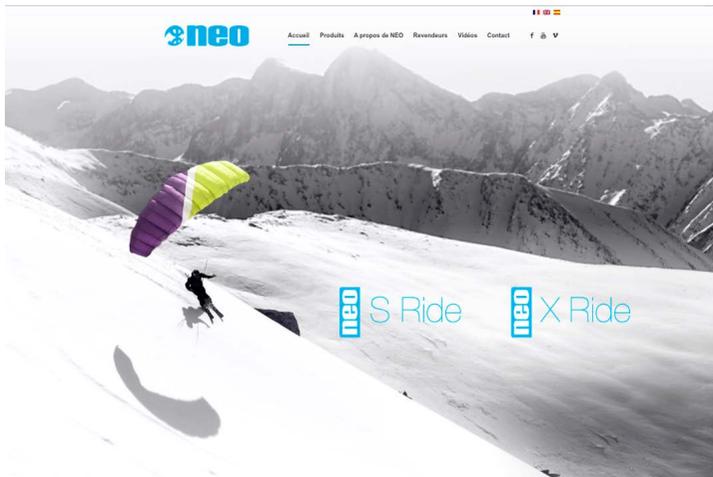
- Wings with an aspect ratio of less than 5.7.
- Wings with an aspect ratio of between 5.7 and 7.
- Wings with an aspect ratio of greater than 7.

www.backtograndbo.com



Photo: Stephane Boulanger





Neo: go for speed.

The French manufacturer of lightweight equipment have thrown themselves into speedriding wings. The S-Ride is, above all, aimed at beginners and intermediates as well as those discovering freeride skiing.

Certification:

- Load test: 6 G
- Sizes: 10 - 11.5 - 13 - 14
- Weight: 2.1 to 2.6 kg

The X-Ride is for expert pilots. Another very innovative product has unfortunately already sold out: a speedriding/ski suit with built-in harness.

www.flyneo.com

The speedriding/ski suit with built-in harness.



COMPASS



The C-Pilot EVO, the successor to the C-Pilot Pro, is the top of the range instrument in colour.



The Easy Pilot

The Italian manufacturer became well known for, amongst other things, the C-Pilot Pro (then the Evo), which is very popular for competitions.

The new instrument, the Easy Pilot, is aimed at all levels of pilot, from beginner to more experienced. It has all the characteristics and functions of the famous C-Pilot Evo and can be used in the same way. The difference, following the current trend, is that it is smaller and lighter! In addition, the screen is grey scale.

www.compass-italy.com

FLYING COMPANY



This manufacturer has changed their name from Flying Planet to Flying Company. Amongst other things, they are committed to Speedriding, in particular with the Mutant (see photo), which comes in different sizes. It's a tried and tested wing which continues to be up to date. Flying Company are offering the Mutant 11 in the form of a starter pack which includes the wing, harness and a course at a nominated school, all for 1340 € (wing, Radical or Kortel Karver harness with a one day familiarization course).

www.flyingcompany.com

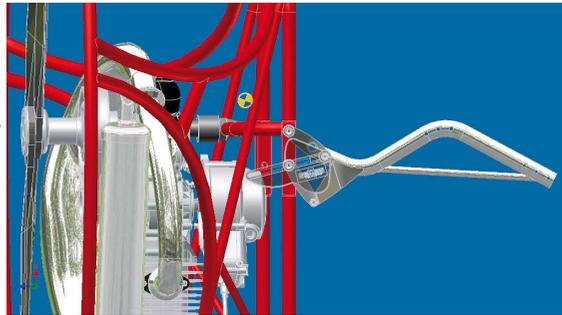
List of speedriding partner schools:

- Envergure Valmeinier Loulou Garnier
www.parapente-speedriding.fr
- Aireole Morzine Albert Baud
www.aireole.com
- Aravis Speedriding La Clusaz Yannick Daheux
www.aravis-speedriding.com
- Les ailes du Mont Blanc Chamonix Sandie Cochepain
www.lesaillesdumontblanc.com
- Les portes du soleil Morzine Laurent Cochard
www.morzineparapente.com

Photo: Flying company

FRESH BREEZE

The "Schnappmatic" mobile push rod system.



The German manufacturer has gone lightweight: The new model with the Top 80 motor and a lightweight harness only weighs 22.5 kg (ready to fly and without fuel), and that's despite the "Schnappmatic" mobile push rod system, which is very comfortable but relatively bulky.

Another innovation is about to leave the drawing board: A new monoplace trike, the X-One, is nearly finished. It will be extremely robust.

The Fresh Breeze Top 80: Only 22.5 kg!



www.fresh-breeze.de/en/home.html
www.paramoteur-evasion.com

The X-One trike: difficult to break...



TANDEM-TUMBLING WITH AN EJECTOR SEAT

Another trend: higher, further, hotter... Hernan Pitocco and Horacio Llorens jump in tandem from a balloon at a height of 4500m above the Pyrenees, they start infinity tumbling... and are ejected just after the highest point, then continue in free fall before opening their parachutes... During the first attempt, they were ejected too early and Pitocco fell into the wing, but managed to free himself.

<http://www.redbull.com/en/adventure/stories/1331701035026/slingshot-paragliding-and-base-jump-move>



FLYTEC ELEMENT



At Flytec, the Element is finally available: An entry-level instrument aimed at pilots doing XC and/or competitions. It's unlikely to have a flat battery as it can work with 2 AA alkaline batteries, which keep their charge well. After being updated with the most recent firmware which is more economical, the battery life is 35-40 hours.

As always with Flytec, the Element records flights in IGC format with a valid signature. What's new (or almost, because it's also in the Sensbox), is that when you plug the vario into a computer, it behaves like an external hard disk and can be read directly, without needing drivers or other software to download it.

New functions anticipated for spring 2015: The generation of a Google-Earth file in parallel with the IGC file and airspace warnings (without a map showing the areas, but with an indication of the distance and direction).
Price: approx 470 euros.

The new top of the range series of "Smart Vario" instruments, which replaces the 60xx, should finally be available in March 2015. They will communicate by Wifi and Bluetooth and an Ant+/FlyLink connection will also eventually be included. A greyscale screen will be incorporated. This series of instruments will be very easy to upgrade.

They've also got a new marketing system: by buying a Smartvario when they come out, the pilot pays relatively less than another pilot buying one later on. Each upgrade giving additional functions will be free for the owners of an instrument, but will increase the price for new buyers...

The FLARM anti collision system is present in several Flytec instruments. An essential upgrade has just been announced and must be installed in all instruments with FLARM. Without this upgrade these instruments will stop working from the 31st of March 2015.

The Element

Model	Flytec Element
Size	138 x 74 x 23 mm
Weight	178 g
Batteries	2 AA, Alkaline or NiMh
Battery life	30-40h
Buttons	7
Interface	Micro USB, connects like an external disc.
Cordless connection	no
GPS	1 fix /s
Flight recording	IGC, KML(*), 10000h @ 1pos/sec (Pos, Baro-Alt, GPS-Alt, SAT-Constellation, TAS).
Native G-Record (IGC signature)	yes
Barometer / Baro Altitude	yes
Thermometer	yes
Air Speed Indicator	optional
Accelerometer	no
Gyroscope	no
Magnetic compass	no
Navigation functions	Waypoints, Navigation, Optimised competition routes (*)
Airspace	yes (*)
Observations	Airspace (*) *= soon
Price	470 €

Coming soon: the new "Smart Vario" range.



www.flytec.ch

NITINOL – THE NICKEL TITANIUM FUTURE



Nitinol could be the material of the future when it comes to making paragliders. It's an alloy of nickel and titanium, in roughly equal quantities. This alloy has very useful properties when it comes to replacing the nylon leading edge rods. It is relatively light and keeps its shape very well. When you bend a leading edge rod made from this material, it goes back to its original form.

Remember that certain plastic leading edge rods can change shape under pressure, and from then onwards, they give the profile a shape that wasn't envisaged by the manufacturer. It's one of the reasons why Nicolas Brenneur, owner of Trekking and responsible for a servicing workshop, has warned for a long time against the possible dangers when leading edge rods age badly. Some manufacturers and developers have therefore turned to Nitinol. Michael Nesler used it two years ago on the tandem Twice TE from the German manufacturer Icaro, as well as on the mountain wing, Husky from Kimfly.



Michael Nesler

Lucian Haas, who works with us (<http://luglidz.blogspot.com>) asked Michael Nesler some questions:

LH: Why Nitinol rather than Nylon?

Michael Nesler:

Nitinol, used in the leading edge, keeps the nose profile firmly under tension and after

the flight, it can be folded away no problem. You can bend it as much as you want, it won't stay bent! To cope with the same tension, a leading edge rod made in Nitinol is no heavier than a nylon one. And it's recyclable! But be careful, Nitinol isn't always Nitinol. Depending on its source and its quality, there can be big differences.

LH: Does it cost a lot more compared to the plastic leading edge rods?

Michael Nesler:

That depends a lot on where the material is sourced!

For a competition wing with lots of cells, the cost of the leading edge rods in PVC is about 5 euros and in Nylon (Polyamid 6.6) about 15 euros. In Chinese Nitinol, the leading edge rods will cost 200 euros and, if you use German Nitinol, it will rise to 350 euros!

LH: Is there a significant increase in performance?

Michael Nesler:

There can be, yes. But there is a potential danger. You can't replace the leading edge rods in a wing 1:1 with Nitinol ones, because making the leading edge so solid could lead to unexpected behaviour especially during incidents in strong turbulence. This isn't always spotted during certification tests in calm conditions! The layout of the leading edge rods really needs to reflect the material used!

LH: If Nylon and Nitinol were the same price, would you make all the leading edge rods out of Nitinol?

Michael Nesler:

Yes, without a doubt!

Photos: Sascha Burkhardt





Photo: Luc Hentsch

TITANIUM TECHNOLOGY: NIVIUK & NITINOL

Photo: Luc Hentsch



Photo: Niviuk

Niviuk were one of the first manufacturers to work with Nitinol. Since 2011 it has been used on prototype harnesses, then on prototype paragliders. Olivier Nef, head of the R & D team at Niviuk, describes how the titanium technology came about in the first mainstream wings:



“We started to study this material in 2011, when we were working hard to improve our Drifter competition harness. We quickly realized its potential and started to look for possible applications. We bought several

metres to test and, right from the beginning the results were very encouraging. It promised more flexibility with an incredible capacity to regain its original shape. The main advantage of Nitinol is that it adapts perfectly to being

used as a reinforcement in our wings thanks to its small diameter, and that helps improve durability. The fabric takes on the ideal shape by reducing the tension caused by the internal stitching, which improves the form of the surface. This doesn't just bring a considerable improvement in the general performance of the wing, but also in the aging of the material. The wing will keep its initial characteristics for a lot longer”.

The other advantage is its light weight compared to other materials. We were thus able to design lighter wings, which is always an advantage for the general behaviour of a wing. In addition, Nitinol isn't affected by high temperatures, doesn't break and isn't damaged by the wing being folded”.

We can therefore expect to find Nitinol in other Niviuk products. On that subject, the Spanish manufacturer have announced for 2015, “four new wings, some new harnesses and more than one accessory...”

www.niviuk.com

AN AUTONOMOUS WEBCAM



An autonomous GSM webcam for less than 100 euros!

Lots of pilots would like to have a small personal webcam on their own secret site so that they can see the current conditions. Pioupiou are good for giving direction and wind strength but they lack a visual display of the clouds for example or, quite simply, to see if there are a lot of people already at take-off.

SolarCam have designed an Android application which loads onto a smartphone, can be charged by a solar panel and transmits a picture every hour. A low cost GSM subscription, such as Free, at two euros a month, is enough! The telephone is placed in a waterproof case suspended in the trees or elsewhere.

The image transmitted is received by Solarcam's server and published on the net. For the moment, the server relies on being financed by advertising and is therefore free. The owner can also initiate an immediate transmission of pictures outwith the normal hourly cycle by sending an SMS to the telephone.

We tried a ready to use pack from Solarcam (100 euros) for three months, including mid-winter, in the mountains at 1600 metres. The aim was to watch a landing field and, secondarily, to keep an eye on some horses in an outdoor enclosure.

The result: the reliability was impressive (it only broke down once requiring the camera to be collected and restarted). It was autonomous without fail thanks to the solar panel and the 2 euros subscription to Free was never exceeded.

Almost perfect!
An alternative to using an external company: an application like IP Webcam, but you don't have the optimization of the setup smartphone/application/server like Solarcam does.

<https://play.google.com/store/apps/details?id=com.pas.webcam>

www.solarcam.fr



Once it is securely attached to a tree, the camera is very discrete. Top right, the kit as bought over the internet. Below, watching animals and a landing field.

Photos: Sascha Burkhardt

An alternative to SolarCam's semi-commercial solution: install an IP Webcam on any Android smartphone.





PARAMOTORING IN SWITZERLAND?!

Photos: Droits réservés, collection Wyssen



ULM's are forbidden throughout Switzerland; this applies to everything motorized weighing less than 450 kg, including paramotors.

All of Switzerland? One exception is a small aerodrome formerly used by the military, where Stephan Wyss takes off from time to time on Fresh Breeze and Fly Products paramotors, for whom he is an importer, or on trikes he has made himself.

Stephan has special authorization for testing - he is limited to a certain number of flights per year which must be within a 20 km perimeter around the runway which is a generous 3km long, and all flights must be registered in a flight log.

It's a shame that Switzerland, a nation which is a great fan of aviation when it concerns extravagant machines landing on the altiports at the chic ski stations, doesn't open up more to the most democratic way of motorized flying...

www.pmswiss.ch

COMPASS

THE DEFINITIVE INSTRUMENTS...
...FOR ANY PILOT*



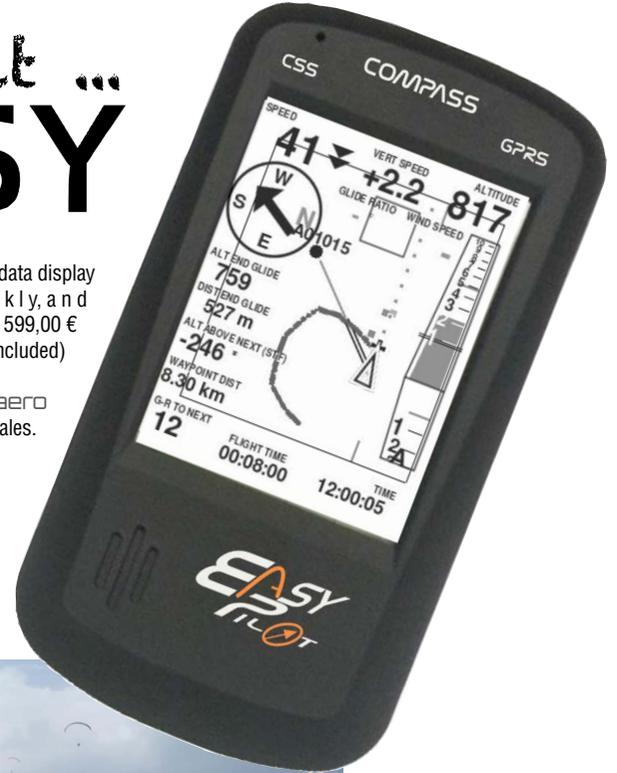
"I'm convinced that the information I obtain from my C-Pilot is not comparable with any other flying instrument. In a competition like the X-Alps or X-Pyr it's very important to have the lightest equipment possible. But you win only if you fly better than the other pilots. That's simply why I always choose Compass to fly with: from XC flights to the World Cup, I always want the best!"

Aaron Durogati

take it ...
EASY

Pilots who have a clear data display think clearly and quickly, and decide better. Price 599,00 € (EC price taxes included)

free gadget to Free.aero readers direct sales.



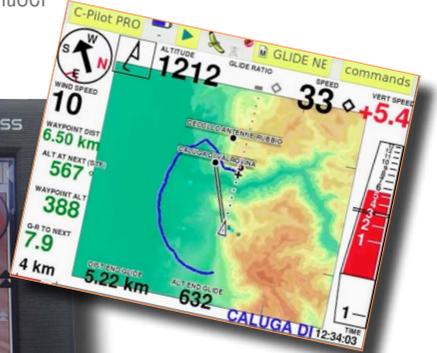
The C-Pilot and the Easy Pilot display, in real time and intuitively, the altitude you'll reach the mountain in front of you at the end of your glide. They also tell you whether or not you'll make the landing field and whether you will be able to get over a col or any other natural obstacle. You don't have to do anything to navigate to a waypoint, it's all automatic. You can customize it to your needs, putting in your own data display and sound to give your own unique personalized instrument. The display will change automatically to optimize your instrument for each different flight mode.



visit Youtube: <https://www.youtube.com/watch?v=sNaLMUmuOC1>



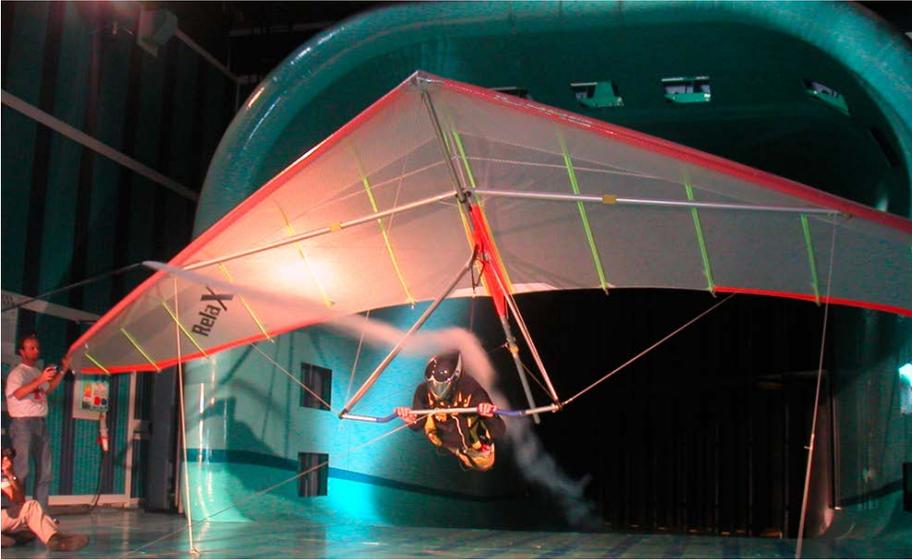
NON PLUS ULTRA
€ 899,00 (EC price taxes included)



Our instruments are designed, built and assembled entirely in Italy. Questions? Details? Want to know more? How do I buy one? Here's how to contact us sales@compass-italy.com: We'd love to hear from you!

WWW.COMPASS-ITALY.COM

ICARO 2000



Icaro 2000 in Italy is one of the top helmet manufacturers for free flyers. We have already regularly featured their models.

In the autumn, Icaro 2000 came up with a new idea which could one day set a trend. Their recent model, the Omega 2, for motorized pilots has headphones, a microphone and an electric circuit made by Icaro themselves, and can be equipped with a double visor system (protected in a slot), which comes from old American army stocks. It was the equipment used by helicopter pilots in the 1970s...

Obviously you can buy a more classic version of this great helmet and with a more peace-loving look (the helmet costs upwards of 360 euros, the headset 300 euros).



Photos: Icaro

www.icaro2000.com



<https://www.google.fr/maps/place/Flugplatz+Höxter-Holzminden>



Photos: Andreas soremba



Flyke flying bicycle rally:
Andreas Soremba, a Fresh Breeze Flyke fan, is organizing the second rally for pilots of this flying bike. Obviously, you can come along with other types of paramotor.

From the 8th to the 10th of May (or the 22nd to 24th of May 2015 if the forecast is bad). Venue: Höxter-Holzminden aerodrome near Paderborn in Germany. Last year thirty pilots took part. Registration before the 30th of April is obligatory.

andreas.soremba@gmx.de



WORLD CHAMPIONSHIPS



Honorin Hamard is the new 2015 Paragliding World Champion. He's young, 23 years old, a student in chiropody and pedicure at Rennes in Brittany, far from the Alps! He's been flying since 2005 and, since 2008 in competitions. His motto even well before the championship was: 'Hold on! 20m above the ground you're still flying'.

In 2011 he was already French runner up, in 2013 he broke the declared goal world record by flying 423.5 km in Brazil and in 2014 he came second in the World Cup Super Final as well as once again being runner up in France. In January 2015, he became the World Champion on a medium Ozone Enzo 2.

We asked Honorin: "Why were you the best?"
 "I was lucky, and my flying style worked perfectly with the conditions and the site".

It's his 'go for it' style which gave him the consistency necessary to win the championship, combined with living to fly. He flies regularly in the Normandy hills as well as in the Alps, for example at Saint Hilaire. This flexibility was an advantage in Columbia, where the tasks left at 1700 metres to cross the plains...

As far as his wing was concerned, he would like to thank his Enzo 2 for its buoyancy, the ease with which it made use of the smallest bubble of air during a transition to arrive 50m above the others in the next thermal...

<http://honoflywithme.over-blog.com>

“Hold on! 20m above the ground you're still flying”



Photo: Didier Maturin

Photos: Honorin Hamard

TAKING CARE OF YOUR INFLATIONS



A very interesting video from the school and shop "Annecy Mini Voile", who specialise in small wings which are the current big trend. In this informative clip, the instructors compare successful inflations with other less successful ones and analyze the reasons, for example, due to the position of the hands.

<http://www.annecyminivoiles.com>
<https://vimeo.com/117402105>



1974
 APCO launches serial production of hang gliders

T-40



1986
 1st generation paraglider hits production

T-30



1995
 Bagheera the glider of champions

2004
 1st paramotor world records

T-20

T-10

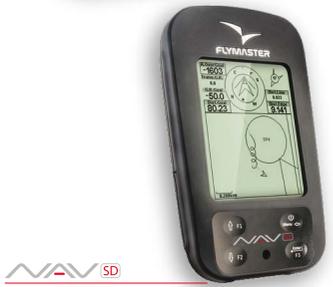
2014
 Vista III the latest creation

NOW

WWW.APCOAVIATION.COM
 At the leading edge of flying since 1974

DEALER OPPORTUNITIES AVAILABLE
 SPECIAL CONDITIONS TO CELEBRATE
 40TH ANNIVERSARY

NEW SD series



BASISRAUSCH



The new model, Kristall Ergo is the latest version of the Kristall Tec glove. This glove made from goat's leather, designed for use in the spring, summer and autumn (comfortable temperature: 10-25 °C), is more comfortable and allows more feeling. The inside is made from thermal regulating fabric.

Price: 109 euros.

www.basisrausch.ch

PARA-MOTORBIKE

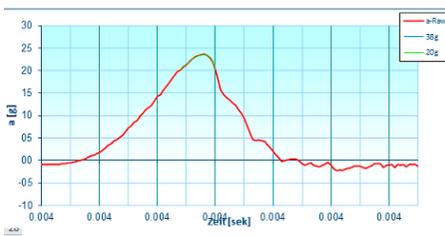
A Harley Davidson on a paraglider...

www.youtube.com/watch?v=HHerOkoDp5E



WOODY VALLEY

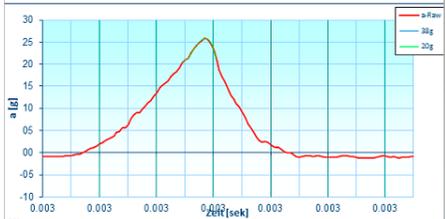
Inspection Certification	336	
Article	HASKA	
Customer		
Testlocation - Date	19/03/2013	
Temp. C°/ humidity	19.8	
Back Angle inclination	original: 25°	
Chart start at [g]	1,00 g	
Limit value [g]	50,0 g	Weight 50 kg
Frequency	1000,00 Hz	Height of Fall 165 cm
rating unit (InpFile)	1,000000 g	Protection Airbag
Offset [g]	0,000000 g	Test setup Drop test
Measuring sensor	100 g - ME AS 28 -	



At last the Wani Light is available. It's a version, weighing only 2.7 kg, of the reversible harness that we featured in the article 'Light' at the end of 2014. Woody Valley have put a lot of work in researching and testing it. They are one of the few manufacturers to test impacts with the harness not only in a vertical position, but also slightly inclined backwards. That changes a lot, the protection often being a lot less!

<http://www.woodyvalley.com>

Inspection Certification	335	
Article	HASKA	
Customer		
Testlocation - Date	19/03/2013	
Temp. C°/ humidity	19.8	
Back Angle inclination	45° from vertical	
Chart start at [g]	1,00 g	
Limit value [g]	50,0 g	Weight 50 kg
Frequency	1000,00 Hz	Height of Fall 165 cm
rating unit (InpFile)	1,000000 g	Protection Airbag
Offset [g]	0,000000 g	Test setup Drop test
Measuring sensor	100 g - ME AS 28 -	

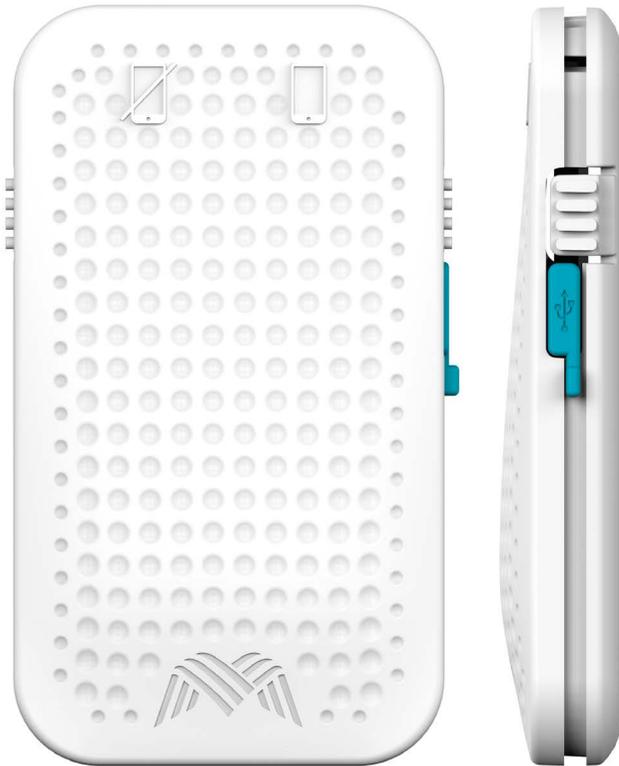


1 and 2 :
Falling in different positions is tested...

With the Wani Light, reserve accessibility in a spiral is tested.



NEW CRASH SENSORS



A start-up company based in Lyon has produced a new alarm box, the My Link, which amongst other things, is aimed at air sports. It is activated by detecting a violent shock and alerts a call centre for assistance to organise a rescue.

As far as localisation is concerned, this device is compatible with all the GPS systems (including GLONASS, the future GALILEO as well as the Chinese BEIDOU). Its GSM module is compatible with all operators. In France for example, it can connect to the network of any of the four operators depending on the coverage available.

<http://www.myangel.com>



It is reminiscent of the Crash Sensor from ICE that we have already featured. This device fits onto the helmet and sends an alarm call via a smartphone like the iPhone 4S or superior to the addresses preprogrammed in case of a serious impact. The disadvantage: The pilot must remember to activate the application on his telephone.

The Crash Sensor must be charged for four hours using its USB socket, it then remains on standby for thirty days (it goes into hibernation if the helmet isn't moving) and can be used for 20 hours.

Price :129 euros

www.crash-sensor.eu

Photo: Sascha Burkhardt



COUPE ICARE

Photo: Bruno Lovit



From the 17th to the 20th of September 2015, as has been the case every year since 1974, the biggest party for pilots in our worldwide free flying family, will take place at Saint Hilaire: The Coupe Icare. To give you an idea of the size and splendour of this unique show, have a look at the 26 minute long film showing the highlights of the 2014 show on the Coupe Icare TV site:

<http://www.dailymotion.com/coupeicaretv>



Photo: Ilan Ginzburg



Photo: Ilan Ginzburg



Photo: Ilan Ginzburg

Photo: Ilan Ginzburg



Photo: Ilan Ginzburg



ABELLE DE LA CONCA, CATALONIA



Abella de la Conca, one of the most beautiful villages in the Spanish Pyrenees, has been given a boost thanks to an association who want to combine sustainable development and ecological management of the village's land with outdoor sports like paragliding, rock climbing, mountain biking and walking.

The village is situated between the two Catalan paragliding Meccas of Ager and Organya, which makes it an ideal base for flying in the region. Staying in the eco refuge will help contribute to the development of this association.



200 vultures live near this village. Two climbers who also paraglide, Antonin Cecchini and Joakim Le Anhari, had the chance to fly with them and made a short film. It's a shame there isn't more footage of flying with the birds, but it's difficult to film...

<https://vimeo.com/118004668>

<http://abellaclimb.com>





Photo: Francis Cormon

BLOIS 2015



<https://www.google.fr/maps/place/A%C3%A9rodrome+de+Blois-le+Breuil>

Basse-Ham is no more... but Blois, which will take place on the 5th and 6th of September 2015, could take over as the big microlight get-together, with an ever growing proportion of paramotorists.

<https://www.facebook.com/pages/ULM-BLOIS-2015/236446729857952>

ACCÉLÉRATEUR D'AVENIR...
SPEEDING UP THE FUTURE...

cameleon U2
poignée - throttle U2

AEF 

www.mycameleon.fr



Photo: Fred Mallard

ITV



Fred Mallard, triple champion...

ITV are working on a new tandem paraglider wing, The Stewart. The Jedi2 is still at the prototype stage, but should be ready soon. The Billy, the first full reflex wing by ITV, confirmed their successful expansion into the paramotor market.

Obviously, in 2015, ITV hope to continue performing at competition level. Their team pilot, Fred Mallard, wasn't just French paramotor trike champion and French slalom paramotor trike champion, but also world paramotor trike champion.

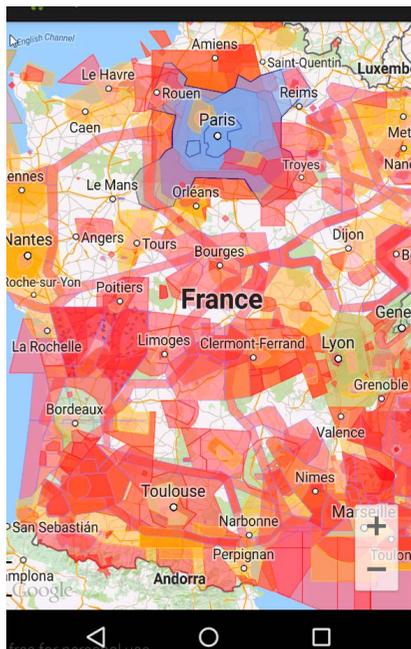
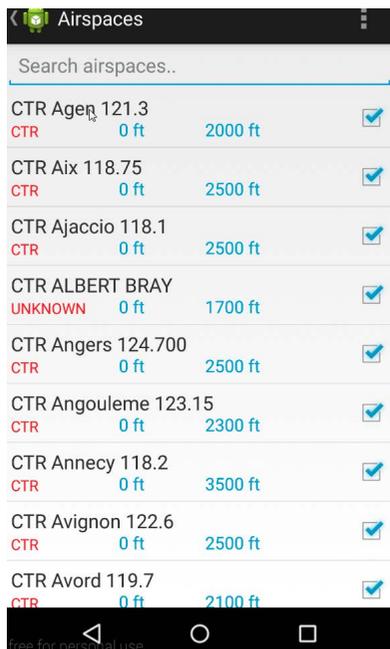
www.itv-parapentes.com



Photo: Joachim Dieng,
www.facebook.com/TijoePhoto,
www.ridair.com

An ITV wing flying with a paramotor...

PPGPS



PPGPS is a very successful Android navigation application, initially intended for paramotor pilots, but also very good for free fliers, and not expensive. The simple version is free, and the complete version costs 1.99 euros ...

In addition to all the classic flight information, it also calculates the direction and speed of the wind and helps you to get back to take-off by displaying the estimated journey time and the direction.

It also offers live tracking and sends SMSs geolocalised for emergencies. The latest news is that it will also display airspace in the very near future! PPGPS also exists in an iOS version for Apple iPhone and iPad, but there is no guarantee that everything new on the Android version will be available straightaway on iOS as well.

www.ppgps.info

SUPAIR EONA



At Supair, after the tandem, the range of paragliders has increased with a school wing, the Eona. Supair promise an easy inflation without hesitation or over-flying, combined with excellent handling. A 3 riser concept with right/left control identification will simplify the handling.

The positioning of the leading edge rods which reinforce the profile has been specially calculated to reduce abrasion from the upper surface thanks to a buffer zone, in order to stop premature wearing.

Supair Eona				
SIZE	XS	S	M	L
SURFACE	20 m ²	23 m ²	26,5 m ²	29,45 m ²
WEIGHT	50-70 Kg	65-85 m ²	80-105 Kg	100-130 Kg

www.supair.com



Photo: Sergey Neipolkoev

APCO



Photo: Apco

The Israeli manufacturer, who is particularly active in paramotoring, has launched a new version of their reflex wing for heavy trikes, the Lift 400. Since 2012 the Lift 450 has been available: 42 m², all up weight 250-450 kg.

The lift 400 is smaller (39 m²), and the all up weight will be 200-400 kg. This wing is designed for smaller trikes or for pilots with heavier trikes who want to increase their speed.

www.apcoaviation.com

BALLENSTEDT

<https://www.google.fr/maps/place/Verkehrslandeplatz+Ballenstedt%2FQuedlinburg>



The small aerodrome of Ballenstedt, on land belonging to the former GDR in the east of Germany, will once again see the DMP 2015 rally, organized by the DULV and its paramotor representative, Thomas Keller (left).



From the 26th of June to the 28th of June there will be a manufacturers' and schools' trade show, races round pylons and obviously a party... This event is like Basse Ham, but a bit smaller.

<http://www.dulv.de/Deutscher-Motor-schirm-Pokal/K218.htm>

A beautiful, summery photo, taken by Franck Simonnet, during the last Ballenstedt festival.



BALLENSTEDT

Photos: Sascha Burkhardt



Ballenstedt, an aerodrome with all the charm of former East Germany.



FLY PRODUCTS



Photo: Benedikt Bös - ParamotorGermany.com

The Italian manufacturer is moving increasingly towards acro, an undeniable trend in paramotoring.

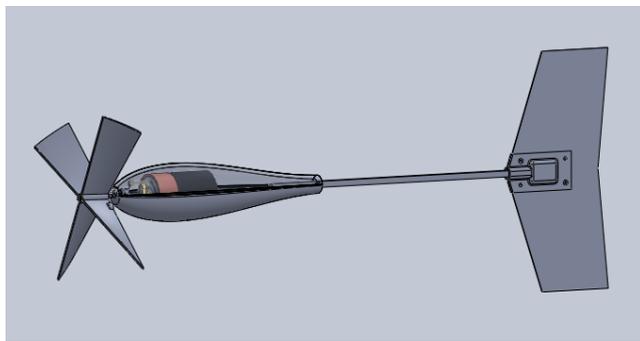
Manu Malaguita, one of the best acro pilots, is in the Fly Products team. His knowledge has been used in research and development at Fly Products.

www.flyproducts.it

AUTOMOUS WEATHER STATIONS



The PiouPiou Version 1



Drawing and prototype of the PiouPiou Version 2



Photo: Piou Piou

We have already featured the PiouPiou windtalker in our special Hi-tech article; it costs about 200 euros, measures the speed and the direction of the wind and transmits these readings, via radio waves, to an internet server. The idea is to equip a maximum number of sites with these windtalkers giving information about the actual conditions.

The current prototypes have worked very well for months, but mass production hasn't started yet because the designer has made quite a lot of changes to the appearance and the technology making it more reliable in the long term. Amongst other things, the solar panel has been replaced by a battery which will last for several years (cost 20 euros).

www.pioupiou.fr

Another weather forecasting service which uses windtalkers is Windfinder, well known for its largely wind oriented weather forecasts, offers weather stations transmitting a number of readings, including humidity, via a radio interface which needs to be linked to a router. Its maximum range is 100m, which makes it not as multi-purpose as the PiouPiou which can be put on the top of a mountain.

Price: 469 euros; the HD webcam version (1 280 x 720 px) costs 539 euros.

<http://www.windfinder.com/weather-station/>



DANCING WITH DRONES



Skydance in Provence

de **Matthieu COLIN** il y a 20 heures TOUT PUBLIC

Une première en France : deux pilotes de paramoteurs ont dansé avec un drone dans le ciel de Provence. Plan de vol, pilotage précis, contact radio entre le pilote du drone, le cadreur et les deux pilotes d'Ulm. Découvrez les images d'une danse inédite. Two paramotor pilots danced with a drone in the sky of Provence.

MatthieuCOLIN.com photographeAerien.com

A video, taken from a drone by the talented photographer Matthieu Colin, which clearly shows the potential of these gyroscopically stabilised quadcopters for getting aerial footage, especially when it comes to filming paramotors. The drone can get a lot closer than other aircraft, and above all, it can hover in a very stable fashion in a fixed position in the sky. Interesting and promising.

<https://vimeo.com/118149505>

SLALOMANIA



Photo: Franck Simomet

The events in the Slalomania circuit are a great showcase for paramotoring as a dynamic sport.

Here are the dates for 2015:

- 20-21-22 March 2015 Montaigu (85 - Nantes)
- 24-25-26 April 2015 Montauban (82 - Toulouse)
- 15-16-17 May 2015 Dovera (Italy)
- 12-13-14 June 2015 St Omer (62 - Lille)
- 24-25-26 July 2015 Couhé-Vérac (86 - Poitiers)
- August 2015 Meaux (77 - Paris IDF)
- 16-17-18 October 2015 Pizay (69 - Lyon)

www.slalomania.fr



Photo: Jerome Maupoint



Photo: Jerome Maupoint

GIN

At Gin, new manufacturing technology is introduced even in the beginner wings. The Bolero has "S-Inlets" in the leading edge, heavily curved in a way which is reminiscent of a SharkNose, whilst at the same time, being very different. The Bolero (EN A) will therefore be very easy to use, very comfortable and very safe. Sizes S, M and L are currently available, XS and XL are to follow.

www.gingliders.com

ADVENTURE

Going lightweight at Adventure has been a success. The X-Race LT machine is very light and powerful, and we'll publish the full test soon. A feature of the attachment system is that, in a few minutes, by undoing just two nuts and reversing the washers, the pilot goes from a system with locked low spreaders to one with free low spreaders, which allow lateral movement and increase the possibility of piloting by weight shift. That allows beginners to become familiar with low spreaders before completely freeing them.

Adventure are preparing a special event for their 25th birthday, which they celebrate this year. 25 pilots will fly across the Channel in paramotors. A few places are possibly still available.

<http://www.paramoteur.com>

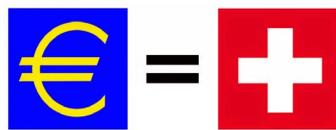


By reversing a washer, the pilot goes from one attachment system to another.



The Swiss franc has flown sky high...a bit like Advance wings, whose manufacturer will be penalized throughout the European market...
Photo : Thomas Ulrich/Advance

—— THE SWISS FRANC HAS FLOWN (TOO) HIGH IN 2015!



In mid-January, the Swiss National Bank changed its policy, it will now no longer make an effort to maintain the Swiss currency at a low level. As a consequence, in the space of a day, the Swiss franc rose by 20 % compared to the euro. If in the past a euro was worth 1.2 Swiss francs, the exchange rate is now about 1:1. This means that anything made in Switzerland will automatically be more expensive for other Europeans than it used to be.

It will therefore be more difficult for makes like Advance, Flytec and Flugsau, to give just a few examples. On the other hand, Swiss pilots will be able to equip themselves more cheaply in other countries. And no doubt there will be more Swiss pilots on holiday at French sites, their trip costing them less than in the past...

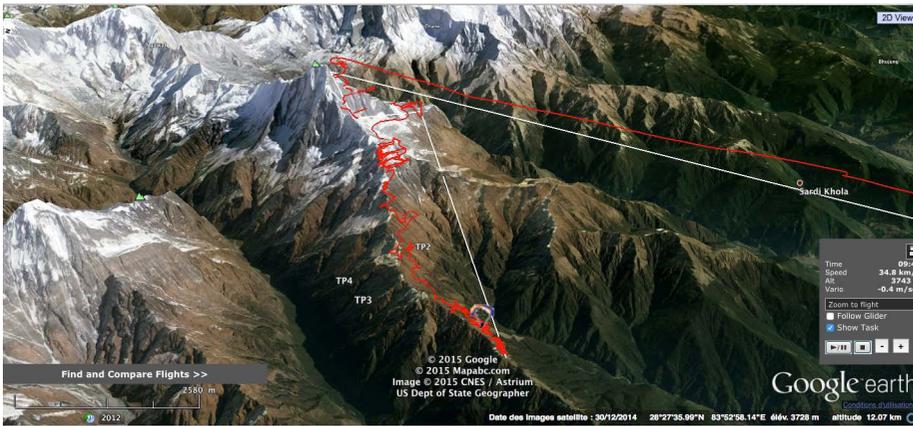
By Lucian Haas
lu-glidz.blogspot.com

Capped with cloud, Machapucharé (6 998 m), has just been conquered by Hervé. Other summits visible: Annapurna I, II and III...



Photo: Hervé Burdet

FLYING OVER A SACRED MOUNTAIN AT 7071M...



In November 2014, he managed to fly over Machapucharé (6998m), a mythical sacred mountain. It has been said that climbers will never reach its summit because, in 1964, the Nepalese king forbade all ascents of it.

Since his arrival in Nepal in 2007, Hervé has dreamt, like all the local pilots, of conquering the summit one day by air. He is the first to have realized this dream. Using a modified harness and the obligatory oxygen, he took off at 3500 metres at 9:20, climbed to 4200 metres of altitude in an hour, then found some good thermals and arrived at the summit at 12:30... the wind was a weak westerly, about 15 km/h. The flight took a total of four hours.

<http://nepalxc.org/flight/398>

<http://nepalxc.org/flight/398>

The French pilot Hervé Burdet lives in Nepal, he flies dual, is a paragliding instructor and runs a repair workshop.



TRENDS IN THE 1990s



Video clip of a deca-place under a 1994 Big Boogie wing, (105 m2 with an aspect ratio of 6!) flying in the Mont Blanc massif. The wing was designed by Paul Amieil who today designs for Air Cross.
<https://www.youtube.com/watch?v=nl9umOneDIY>

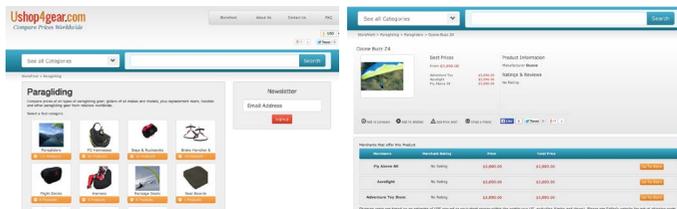
20 to 25 years ago, the trend was for bigger and bigger wings to compensate for the mediocre performance of the fat profiles. Today, we've gone the opposite way with the minis which fly like the big ones!

Two interesting videos found by Lucian Haas (<http://lu-glidz.blogspot.fr>) show experiments with very big surfaces and some extreme 'HiArc'.



HiArc, wings which are highly curved, is a fashion which appeared ten years ago. But long before that, in 1988, Michel Werli made his own HiArc wings...
<https://www.youtube.com/watch?v=PfNPI-Nmbu8>

PRICE COMPARISON



Finally there is a way of comparing prices for paragliders and accessories sold over the net. At the moment, it only covers shops in North America, but the creator of the site promises global coverage soon.

<http://ushop4gear.com>



Photo: Andreas Busslinger

SKI AND FLY: SAFELY (1)

'Hike and fly' is now increasingly complemented by 'ski and fly' in winter. Some pilots reach the summits using ski mountaineering skis so that they can take off over an untracked landscape, others take off from ski stations, going up in the first spring thermals and landing on slopes full of untouched powder, ready to ski down.

These pilot skiers are faced with the risk of avalanche, and some take the necessary equipment. Airbags are a very visible trend with fans of off-piste. They comprise a rucksack with one or more large bags which can be inflated by the rider when he finds himself caught in an avalanche. It can't guarantee survival, but this sort of device can (and has been proved in the past to) prevent the victim from being buried, by enabling them to float better in the avalanche. Their chance of staying at the surface, and therefore having air to breathe, seems a lot higher.



SKI AND FLY: SAFELY (2)



Photos: Burkhardt

The trigger handle.



A 150 litre airbag folded up in the top part of the rucksack.



An option for those who often want to try it out: A rechargeable bottle with a set of caps. Each time it is activated, a cap is pierced and must be replaced.



The three cartridges available: in carbon, steel and rechargeable with a gauge (310 g, 500 g, 630 g).



They can be recharged using a diver's bottle using its adaptor.

The Swiss company Mammut makes the Light Removable Airbag, a fairly light rucksack (30 litres), containing an optional airbag (150 litres) by Mammut. Total price: 750 euros (approx).

It can be equipped with a choice of a single use cartridge in carbon or steel, or a steel cartridge with compressed air which can be refilled from a diver's bottle (using an adaptor).

The advantage of the latter version is that you can easily test the system and refill it, you just need to replace the cap (three cost 13 Swiss francs) and reinflate the bottle. The steel bottles (cost: 120 Swiss francs, 500 grammes full) are less expensive than the carbon ones (250 Swiss francs, 310 grammes full) and also less expensive than the rechargeable ones (240 Swiss francs, 630 grammes full). Obviously, with a carbon bottle, the rucksack is more suitable for hike and fly; it only weighs 2.2 kg (compared to 2.38 with a steel bottle).

The manufacturer will refill the bottle for free; all you need to pay is the postage. Mammut also sell the Barryvox Element, which is a high-performance avalanche transceiver, very intuitive and ergonomic.

www.mammut.ch



The Barryvox Element is a device to help locate avalanche victims, it's intuitive and easy to use.

Shop price: about 280 euros.



ASI FLYNET XC1



Photos: Burkhardt Sascha

The ASI FlyNet XC1 is the follow up to the excellent FlyNet. This vario includes a GPS so it isn't just an acoustic vario, but also records a tracklog, and saves it as a valid IGC file (FAI G-Record) in its memory which is accessible via USB like any other USB key; no need to install a driver.

Also very interestingly and rather unusually, it has two Bluetooth interfaces, classic BT and Bluetooth LE. Therefore the instrument can transmit the information live to a very large range of smartphones and tablets, from the cheapest Android tablets to iPhones and iPads. Full test in our magazine soon.

Price: approx 380 euros

N.B. the FlyNet also exists in a new version without a GPS, the FlyNet 3, which also has both versions of BT 4.0.

Price: approx 264 euros.



<http://www.asinstrument.ch>

MOTOMONITOR

A Polish company makes very modern instruments for paramotors. The MotoMonitor is very small and light but at the same time performs well. It includes a GPS and displays both the direction and the wind speed on a well lit colour screen. But above all, it offers a cordless interface with a compact case and monitors parameters like RPM, CHT and also EGT.

Price: approx 400 euros!
Full test in our magazine soon.

www.flyelectronics.eu



Photos: Burkhardt Sascha

The screen is well lit, with good contrast.



A light, compact instrument.



Relaxed with a smiley on the screen.



Photos: S. Burkhardt

FLYMASTER

Flymaster has made a big leap forward with the introduction of a slot for an SD card in all their instruments. Making the available memory virtually unlimited permits instruments with a GPS to load worldwide airspace and a worldwide topographical database, which allows the height above the ground to be displayed.

Another strength of these Portuguese instruments is their cordless RF interface. During all our tests, connection to one or more accessories was very easy, whether with the HEART-G, the TAS pitot tube or the M1 monitor for measuring engine values on a paramotor.

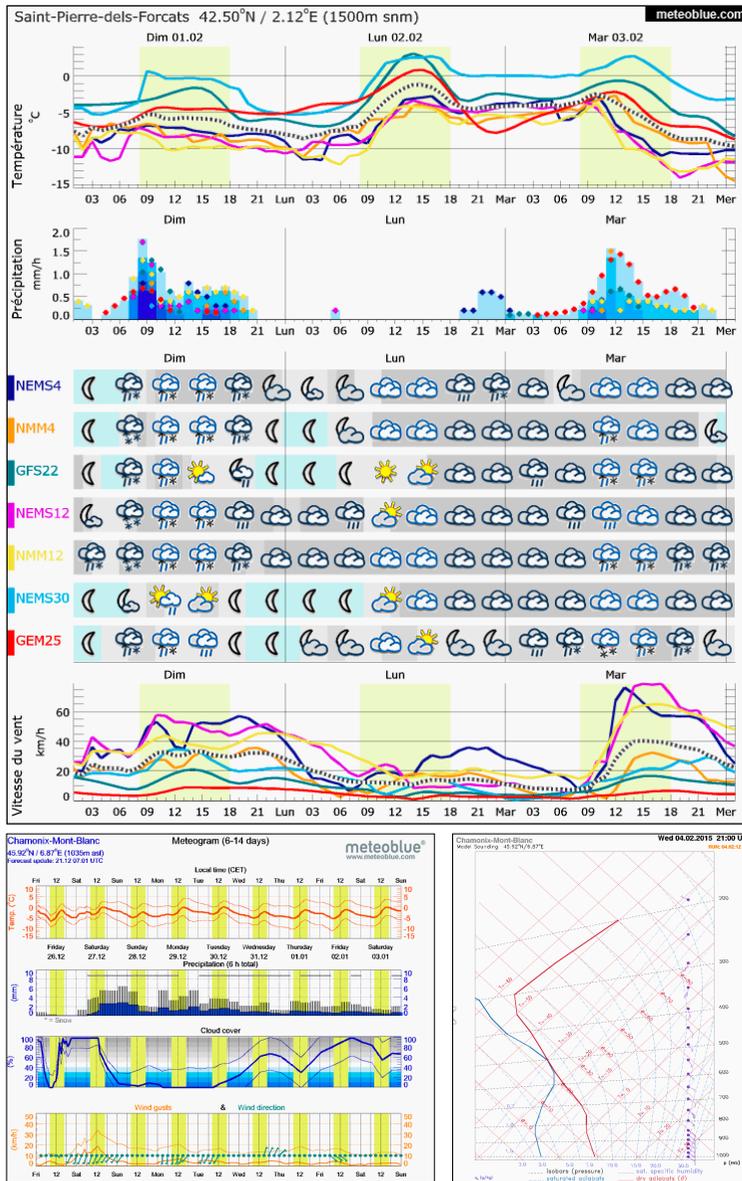
www.flymaster-avionics.com



A Flymaster Live SD, price approx 696 euros.



A Flymaster GPS SD, price approx 408 euros.



A very detailed meteogram.

Request a virtual sounding anywhere on the planet!

For years we have followed the forecasts given by this Swiss weather station, initiated at Bâle University. With meticulous precision, their bulletins have out classed national services!

It's hardly surprising since Meteoblue have always been ahead in terms of model grid size. At the moment, the parameters of the models across all of Europe, from Scotland to Crete to Portugal as far as Poland, are calculated on the basis of a 3 km x 3 km model.

For the rest of the world, for example in the Andes, the calculation is based on a grid of 10 kilometres. It is very fine and can take into account the numerous local orographic parameters.

We particularly like the simple meteograms as well as the multi-model ones. In the free three day ones, Meteoblue don't say 'it'll be sunny' but 'according to model GFS22, there will be sun in the afternoon, but if you look at NEMS 12, it'll snow!'

That's exactly what we want from a weather forecast. Better to talk probabilities to informed pilots, rather than just 'take an umbrella tomorrow' or 'it'll be nice enough to sit outside at a café'.

www.meteoblue.com



Photo: DR, collection François Rogowski

CLIMATE TRENDS, THERMAL TRENDS?

So, is there Global warming or not? According to the World Meteorological Organization (WMO), 2014 beat all the records for temperature, in the context of a continuing warming trend.

In 2014, the average air temperature at the earth's surface was 0.57 degrees Celsius (1.03 degrees Fahrenheit) more than the average for the reference period 1961-1990, which was 14.00 °C (57.2 °F). The WMO general secretary, Michel Jarraud, announced:

"Analysis of the datasets indicates that 2014 was nominally the warmest on record, although there is very little difference between the three hottest years. Fourteen of the fifteen hottest years have all been this century. We expect global warming to continue, given that rising levels of greenhouse gases in the atmosphere and the increasing heat content of the oceans are committing us to a warmer future".

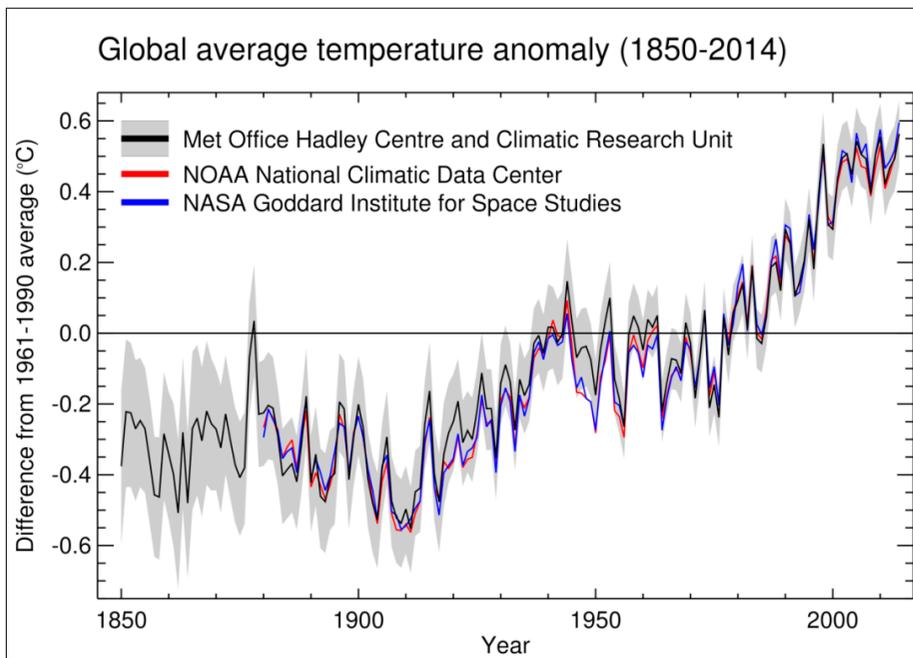
So where does that leave our thermals?

But, if we look selfishly at our sport as pilots and forget the environmental aspect, how will that change flying conditions? A probable scenario according to several specialists:

Firstly, the length of time favourable for thermals will increase. They will start earlier in spring and finish later in the autumn. But at the same time, the contrasts being stronger, the conditions could also be more violent, with an increase in phenomena such as Dust Devils, as well as storms making it totally unflyable.

Paradoxically, in the middle of the summer, the constant heat at all levels could make the atmosphere more stable, suffocating the thermals under a leaden blanket. That would be great for paramotors!

In a nutshell, the thermals will start earlier in the year and finish later, it will often be more turbulent, but in the middle of the summer a window of flyable weather should be possible...



SKYMAN

Markus Gründhammer has announced the start of production of the Cross Alps, his EN C wing. It was put to the test, with Toma Coconeá at the controls, during the X-Pyr 2014, where he took 3rd place. The wing only weighs 4.2 kg, thanks to the material, D10.

www.skyman.aero



FREE FLIGHT

The company Air Avionics (formerly Butterfly), who specialize amongst other things in FLARM anti collision systems, now sell a very comprehensive application for iPhones and iPads, specially designed for paraglider and paramotor pilots.

One of its strengths is that the airspace is updated daily. A temporary exclusion zone such as the one put in place during the commemoration of the Normandy landings would appear automatically on the map on the screen.

The application also has live tracking on livetrack24.com and can be connected to instruments such as Flytec's Sensbox.

The basic version costs 44.99 euros and accessories can be bought to add functions such as FAI flight optimization or live display of the positions of other pilots connected to Livetrack24.

www.air-avionics.com

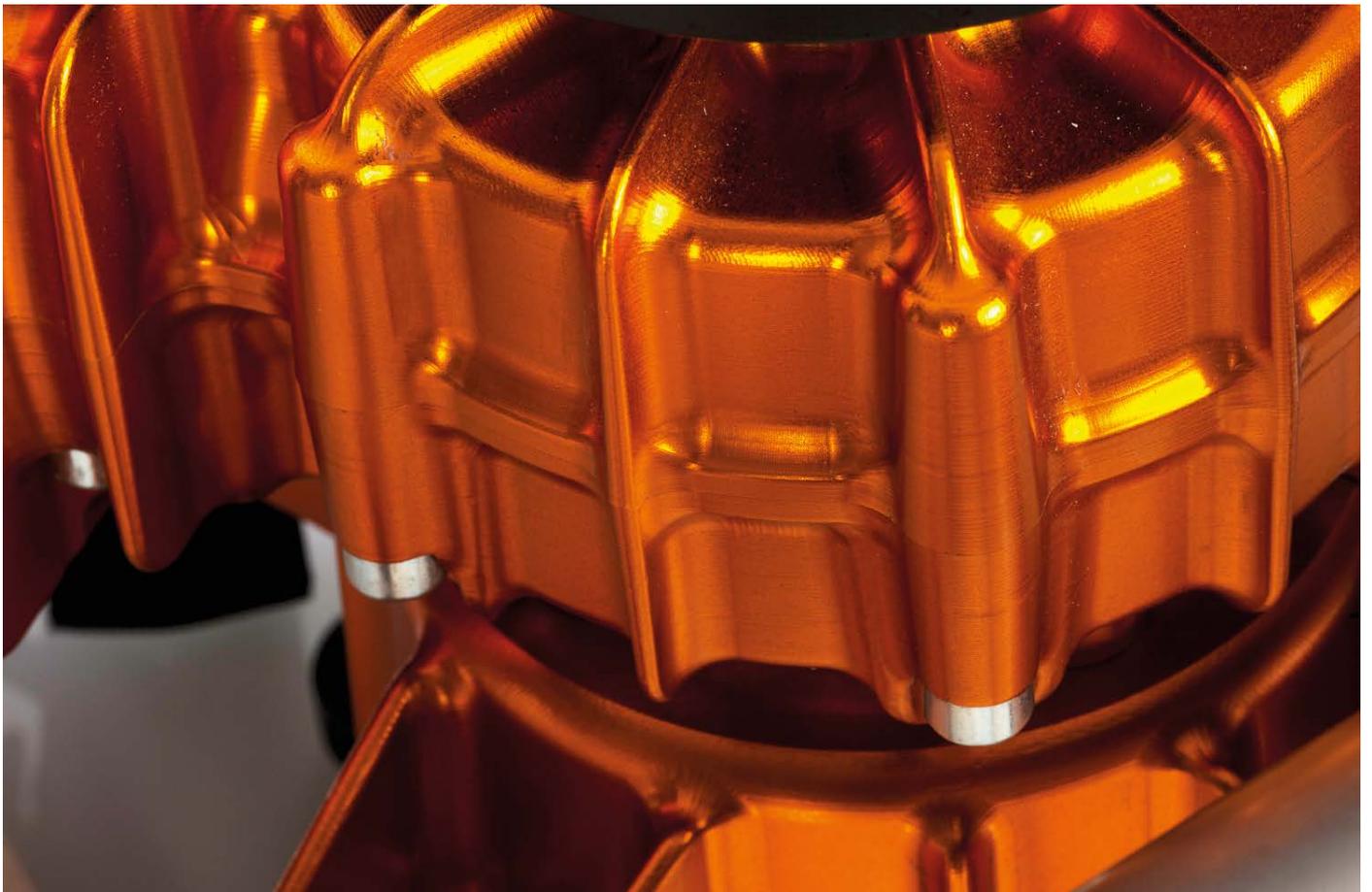


VITTORAZI



The tried and tested Moster 185 is coming out in an additional version, the Moster 185 Factory. The crank case is machined out of 7075 aluminium making it 10% lighter and giving better heat dissipation. The new cylinder will also be lighter and quieter, and a titanium exhaust pipe saves an extra 40%. The result according to Vittorazi: a motor weighing only 12.5 kg.

www.vittorazi.com





The Spanish manufacturer has been making paramotors for over twenty five years; the first was built in 1989.

Pierre Aubert, the boss, who is a French expat now living in Andalusia, has lots of new things in the pipeline for this year, but we can't tell you about them yet, so watch this space...

<http://www.papteam.com>

A PAP PA 125 being tested
by voler.info/free.aero

Photo: Véronique Burkhardt



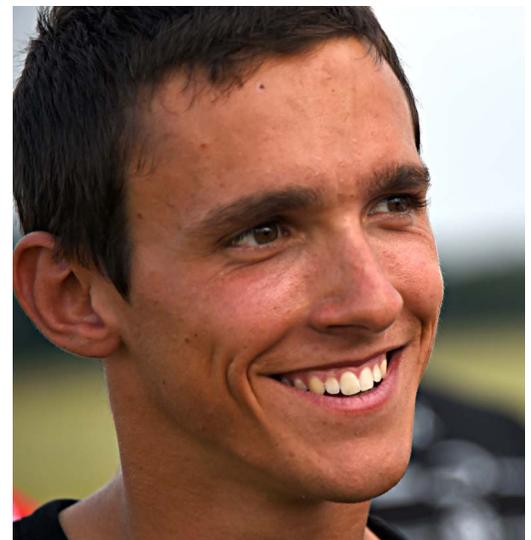
The range from the Italian motor manufacturer will be completed by the little 86 cc motor that we featured in our Coupe Icare article.

In the meantime, the range is already pretty comprehensive and has been tried and tested, particularly with the Thor 200 and the Thor 250 in competitions.

Alex Matéos, the French and World Champion in 2015, swears by these two motors on his MacFly chassis: The Thor 250 for slalom and the Thor 200 for classic competitions, 'for its extremely low fuel consumption combined with very high power'.

www.polini.com/en/index.html

World Champion, Alexandre Mateos



Polini Thor 200
 193 cc
 29 HP @ 8 000 RPM (bowl carburettor)
 17.5 kg (hand starter)
 18.5 kg (electric starter)



Polini Thor 250
 244 cc
 36 HP @ 7 500 RPM
 Weight without radiator and coolant:
 18 kg (hand starter)
 19 kg (electric starter)

GOOGLE EARTH PRO... FREE !



Nearly all pilots use the free Google Earth application to check out a site before going there and to analyse the XC possibilities.

Google Earth announced at the end of January 2015 that the Pro version is also now going to be free (instead of being nearly 300 euros a year). The differences are listed on Google Earth's website:

<https://www.google.com/work/map-search/products/earthpro.html>

Fonctionnalités	Google Earth	Google Earth Pro
Impression d'images	Résolution de l'écran uniquement	Images haute résolution
Régionalisation d'ensembles de données volumineux		✓
Géocodage d'adresses par lots		✓
Importation de données SIG		✓
Importation d'images SIG	Géolocalisation manuelle	Géolocalisation automatique
Importation d'images volumineuses	Jusqu'à la taille de texture maximale	Au-delà de la taille de texture maximale (superposition d'images de grande taille)
Accès à des données démographiques, à des données cadastrales et à des données de circulation		✓
Création de vidéos de qualité supérieure		✓
Mesure de la surface d'un polygone ou d'un cercle		✓
Cartographie simultanée de plusieurs points		✓
Outil de calcul du bassin visuel		✓
Outil de création de cartes		✓

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